

V E N T I L A T I O N

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TECNICA

EN

TECNICATM

Efficient Indoor Air Project

EN

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Efficient Indoor Air Project

TECNICA srl
is a company certified
UNI EN 9001:2015
issued by TÜV ITALIA.
Certificate number 50100 15241



TECNICATM

Efficient Indoor Air Project

The words “**Efficient Indoor Air Project**” reflect the mission of **TECNICATM**: to develop products that are focused on preserve the health of people living in confined spaces and to environmental sustainability in its most complete sense.

The constant evolution of our products, as a result of our continuous Research and Development conducted on materials, technologies and production techniques, make us a leading company in the **production of flexible hoses, diffusers and filters** for the air conditioning and ventilation of confined spaces within **executive, commercial, residential, hotel, hospital, automotive and naval** sectors. The **VENTILATION** catalog collects all our production of flexible hoses and highlighting their technical peculiarities, their possible range of applications, **the approved built-in antimicrobial material protection** and their contribution to the **credits of the main world sustainability ratings in construction: LEED, WELL and BREEAM**.

Welcome to TECNICATM - Efficient Indoor Air Project



BREEAM[®]

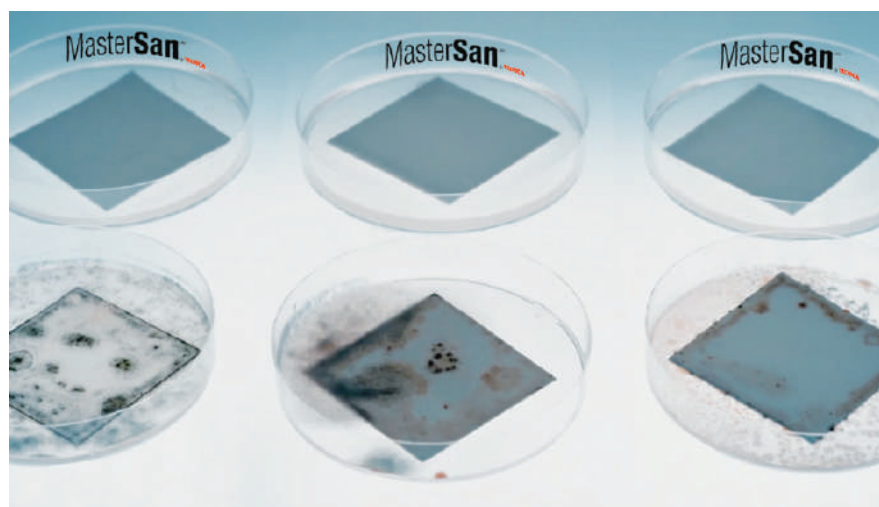
patented, Sanitized[®] protected products, durability guaranteed 10 years, which also contribute to the credits of the main world sustainability ratings in the building industry.

Antimicrobial Material Protection

MasterSan™ by TECNICA™



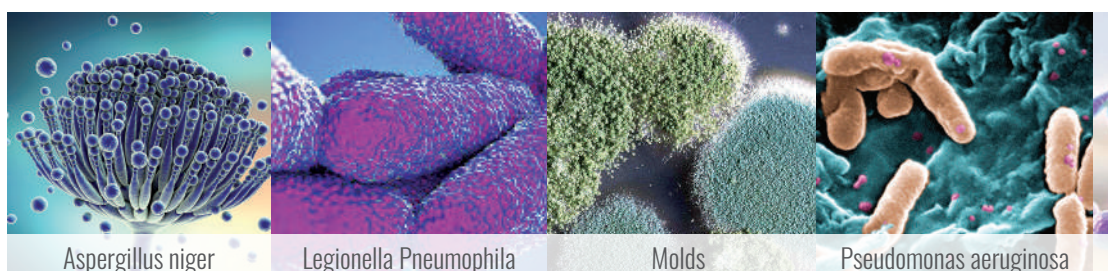
From TECNICA™ research in collaboration with Sanitized®, the MasterSan™ flexible hoses range with integrated Sanitized® hygiene function has been developed to prevent the proliferation of bacteria, fungi and molds. MasterSan™ with the built-in hygiene function contributes to ensuring high standards of indoor air quality, as requested by the World Health Organization. MasterSan™ hoses do not release chemicals that are harmful to health. The integrated hygiene function protects the material of MasterSan™ hoses against microbes. Recent laboratory testing have also confirmed an antiviral performance.



FRIENDLY CHEMISTRY



NON-TOXIC



Aspergillus niger

Legionella Pneumophila

Molds

Pseudomonas aeruginosa



Why MasterSan™ ducts with hygiene function?

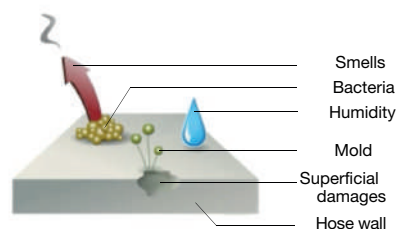
Because **bacteria**, as well as **fungi, germs and molds** present in the air passing through the aeraulic systems, can easily nest on the walls of the ducts and can multiply extremely quickly if the humidity and temperature conditions are such as to favor their growth and proliferation. **Tests recently done have shown that the material is also protected against viruses.**



These unwanted microorganisms negatively influence the hygienic conditions of the aeraulic system, giving rise, for example, to unpleasant smells or the accumulation of bacteria, fungi and molds, which can also result in damage to the internal wall of the ducts.

MasterSan™ with the built-in hygiene function contributes to ensuring high standards of indoor air quality.

MasterSan™ flexible hoses do not release chemical compounds that are harmful to health, including features such as certified self-extinguishing, flexibility and strength characteristics, suitable to withstand the mechanical and thermal stresses required by the aeraulic systems.



Evolution in

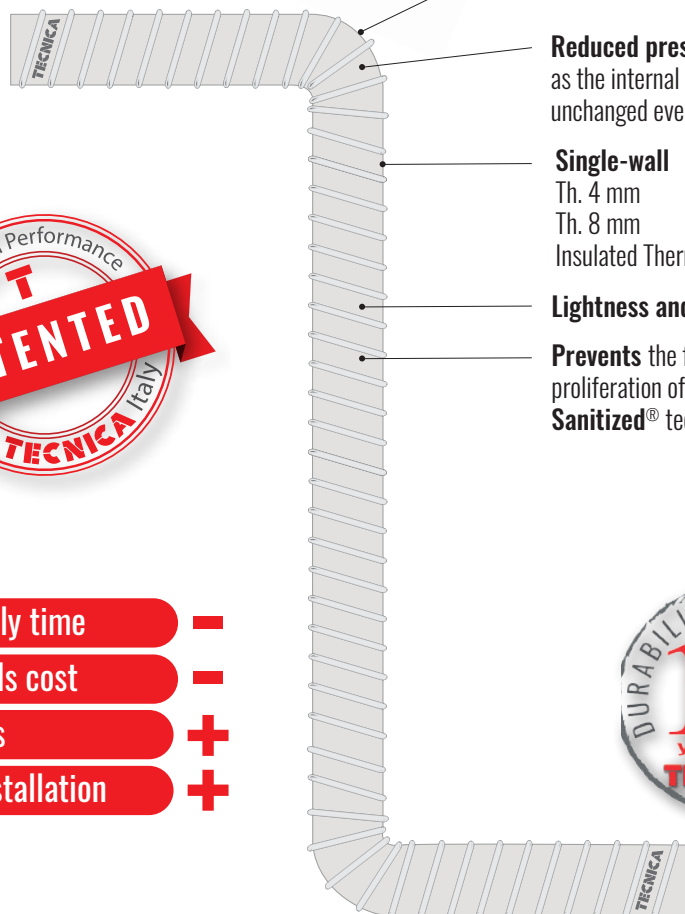
T-EspTM

by **TECNICATM**

the new generation of
single-wall flexible hoses for air conditioning
and ventilation systems in confined spaces



- assembly time -
- materials cost -
- easiness +
- quick installation +



No limitation to degrees of curvature on the products.

Reduced pressure drop
as the internal section remains unchanged even in the points of curvature

Single-wall
Th. 4 mm $R = 0,12 \text{ m}^2\text{K/W}$
Th. 8 mm $R = 0,24 \text{ m}^2\text{K/W}$
Insulated Therm $R = 0,66 \text{ m}^2\text{K/W}$

Lightness and self-supporting

Prevents the formation of **mold** and the proliferation of **bacteria** thanks to **Sanitized[®]** technology.



efficiency

areas of use for tubes

T-Esp

directional

commercial

residential

hotel

hospital

automotive

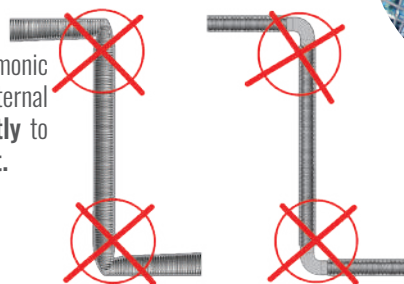
railway

naval

Why **T-Esp** single-wall hose

FLEXIBILITY

T-Esp hoses are **light and self-supporting** with an harmonic steel spiral wire that acts as a rib and allows to keep the internal section **unchanged even in the curves and consequently** to guarantee the **pressure drops as foreseen by the project**.

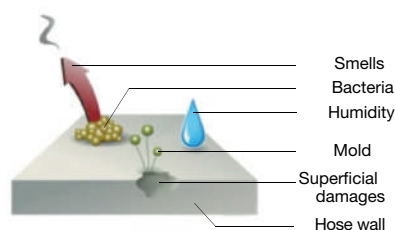


SINGLE-WALL

T-Esp HOSES are manufactured by a **single insulating wall with a thickness of 4 or 8 mm**, which allows to **minimize the necessary assembly spaces** for all its fields of applications such as construction, automotive, aeronautical, naval and in all cases where the spaces for the air conditioning or ventilation system are reduced and **high efficiency performances must be guaranteed**.

ANTIMICROBIAL

Thanks to the **MasterSan** technology, developed and designed by **Tecnica** in collaboration with **Sanitized**, the **internal wall of the T-Esp** hose is **additivated** with **Sanitized** compound, which **prevents smells caused by the accumulation of bacteria, fungi and molds**, and also protects the internal wall of the ducts against microbial damage. **Tests recently done have shown that the material is also protected against viruses**.



INSULATING AND ENERGY EFFICIENT

The wall of the **T-Esp** hoses has an insulating features and a thermal transmittance of **9,5 Wm²K equal to 8.173 Kcal**.

DOUBLE SAVINGS

T-Esp hoses allow double savings: **assembly time and operating costs**.





Green building contribution

by **TECNICA**TM

TECNICATM has focused on **sustainability** as a strategic lever of the company policy, promoting **product innovation** (materials, technologies and production techniques) and the **development of concrete actions**. We have evolved our approach to **resources**, increased the **circularity of the products** life cycle, developed new potentials, promoted awareness of concepts such as sustainability and transparency, and implemented actions for the specific **positioning of our products with respect to the main international sustainability ratings in construction: LEED, WELL and BREEAM**.



FRIENDLY
CHEMISTRY



SUSTAINABILITY



RECYCLABILITY



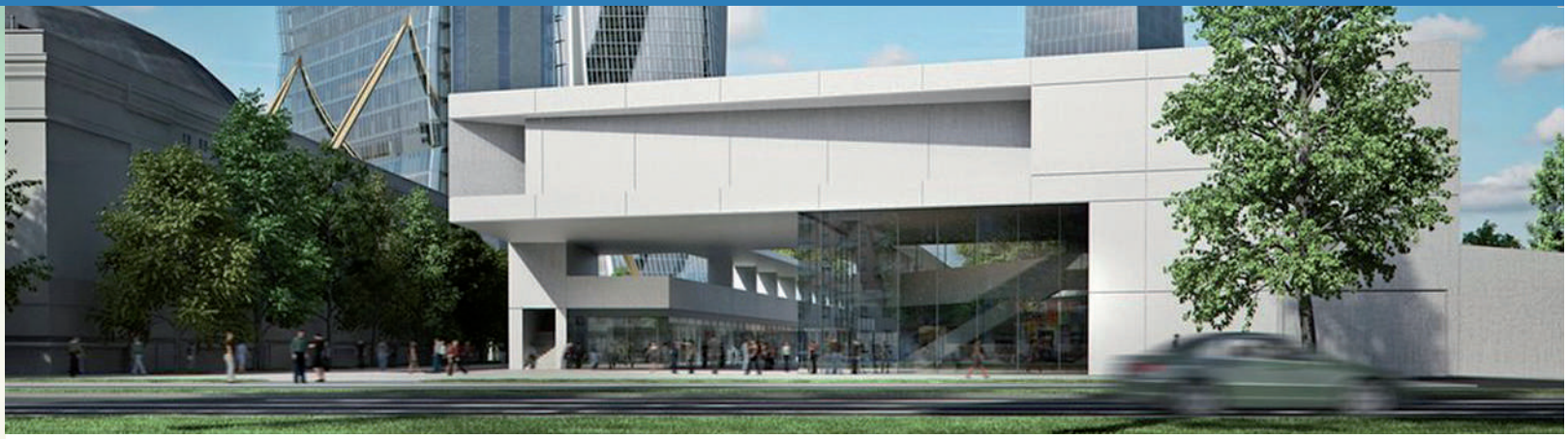
ANTIMICROBIAL
PROTECTION



NON-TOXIC



ENERGY
EFFICIENCY



We have verified the contribution of our products and services to the LEED, WELL and BREEAM protocols, adopting the language of architects, designers, builders, investors and buyers, positioning our products according to the selection criteria adopted for the “final product” of the supply chain : the buildings.



LEED® (Leadership in Energy and Environmental Design)

It is a building assessment protocol that involves the entire life cycle of the building itself, from design to construction. Promotes a sustainability-oriented approach, recognizing the performance of buildings in key sectors, such as energy, water savings, reduction of CO₂ emissions, improvement of the ecological quality of the interiors, materials and resources used, the project and the choice of the site. Developed by the U.S. Green Building Council (USGBC), the system is based on the attribution of “credits” for each requirement.



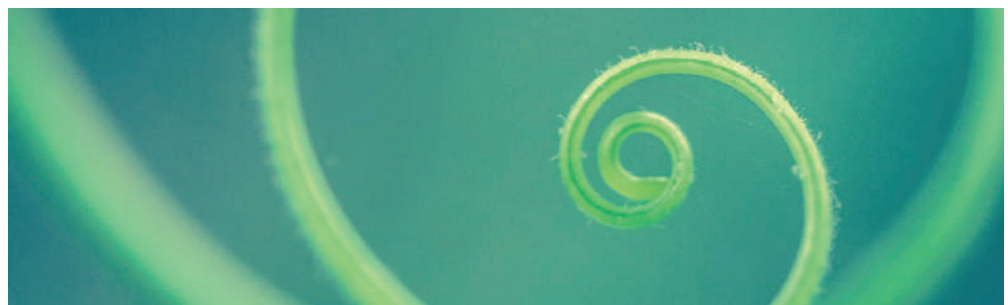
WELL™

It is a building assessment protocol that focuses on the health and mental well-being of those who occupy a given built space. Considering the amount of time spent in closed environments, about 90% of a day, the WELL™ certification can be applied to all construction sectors and to all uses of buildings (residential, school, hospital, etc. ..) but finds its maximum expression especially in workplaces (offices, industries) in which the achievement of a serenity condition can have positive implications also on the productivity of the whole company.

BREEAM®

BREEAM® (Building Research Establishment Environmental Assessment Method)

It is a building assessment protocol, established in the UK, which focuses on the environmental performance of buildings. BREEAM® is based on recognized assessment methods set according to pre-established reference parameters in order to verify the design process and the construction and use of the buildings. The criteria concern different categories, from resource management to ecology, and include aspects related to the use of energy and water, the internal environment (health and well-being), pollution, transport, materials, waste, ecology and management processes.



TECNICATM

Efficient Indoor Air Project

TECNICATM is the first manufacturer of flexible hoses, diffusers and filters for air conditioning and ventilation to have carried out the verification of its products and highlighted their contribution to the certified sustainability credits according to the **LEED, WELL and BREEAM** protocols. TECNICATM policy for sustainability involves the entire economic supply-chain and contributes to the realization of products according to a **conscious use of primary resources**, promoting their circularity and guiding all interested users in the construction **supply chain to enhance the adoption of certified sustainability in construction processes** using products that concretely contribute to it.



COMPLIANCE WITH THE PREREQUISITES AND CREDITS OF THE FOLLOWING BUILDING SUSTAINABILITY RATING SYSTEMS.

PRODUCT	PG.			BREEAM®
SA10 ESP	14	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
SLEEVE SA10/ESP	18	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
SA10/ESP 8MM	20	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
SA10/ESP THERM	24	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
SA10	28	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
SA10 THERM	30	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
AR10	32	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
AR10 THERM	34	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
AL-SA	36	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
F10 ESP	38	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
F10/ESP SLEEVE	42	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
F10/ESP THERM	44	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
F10	48	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
F10 THERM	50	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
F6	52	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
F6 THERM	54	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
AC	56	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
AC THERM	58	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
ALP	60	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
AL-F 10	62	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
AL	64	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
AL THERM	66	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
AL PHON	68	IP, EA, MR	SOUND, MATERIALS, COMMUNITY	MAN, HEA, ENE, WST
AL1	70	IP, EA, MR	MATERIALS, COMMUNITY	MAN, WST
AL1 THERM	72	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST
AL1 PHON	74	IP, EA, MR	SOUND, MATERIALS, COMMUNITY	MAN, HEA, ENE, WST
SLEEVE THERM	76	IP, EA, MR	MATERIALS, COMMUNITY	MAN, ENE, WST

TECNICATM

Efficient Indoor Air Project

TECNICA srl designs, produces and trades the items listed in this catalog by applying the highest quality standards.

The performances of the products depends on a correct and adequate choice and use.

TECNICA srl declines any responsibility for the improper use of the products and is not responsible for any damage that may result from incorrect use, malfunction, or product damage or incorrect interpretation of the information here given.

The warranty offered is limited to the possible replacement of the supplied material which should be found defective at the discretion of the general management, see also the supply conditions listed in this general catalog.

TECNICA srl reserves the right to modify the characteristics of the products listed in this catalog without prior notice. All or part of the documentation reported in this catalog cannot be reproduced, transcribed or translated without written authorization from TECNICA srl as required by law.

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VENTILATION

ANTI-BACTERIAL AND ANTI-MYCOTIC FLEXIBLE HOSES MasterSan™

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FLEXIBLE HOSES

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SA10/ESP Patented MasterSan™

Flexible hose produced with exclusive technology by TECNICA SRL made of:

- Additivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam. (sp. 4mm)
- External protection in additivated polyolefin resins film.
- Embedded steel wire helix.

The assembly of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

Thermal resistivity at 20°C $R = 0,12\text{m}^2 \text{K/W}$ (UNI EN 12664:2002)

MasterSan™
in collaboration with:



TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	WORKING TEMPERATURE	PRODUCTION DIAMETERS	AIR SPEED	PRESSURE	CURVATURE RADIUS
Grey	10m standard	-20° + 90°C (peak +115°C)	from 40mm to 254mm	max 20m/sec	max 200 mmH ₂ O	1,2 - 1,8 x Ø

PRODUCTION DIAMETERS

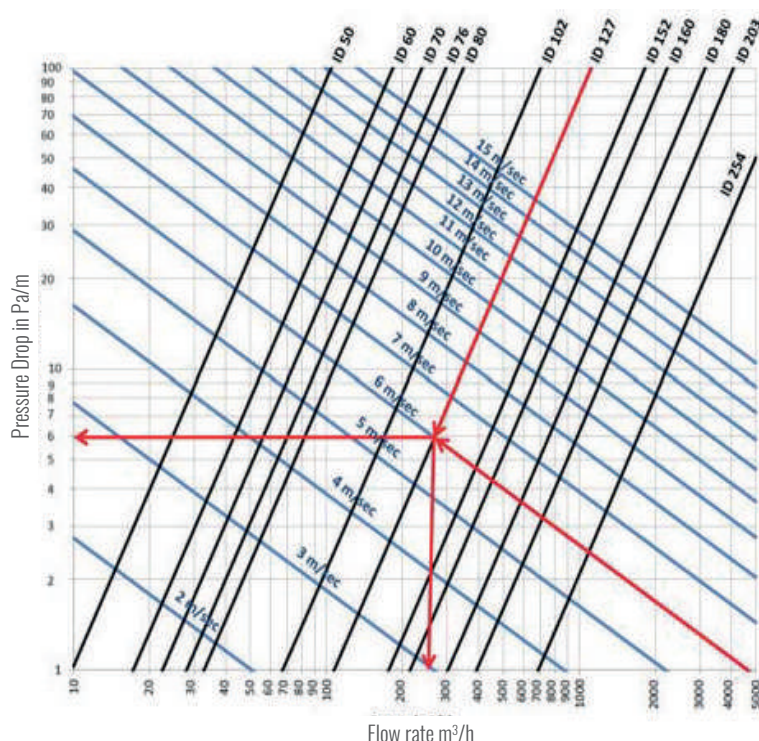
40*	51	63	70	76	80	90*	102	110*	121*
127	133*	140*	152	160	165	180	203	254	

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air Temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of the other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	WORKING PRESSURE	WORKING VACUUM	CURVATURE RADIUS	WEIGHT
[mm]	[bar]	[bar]	[mm]	[gr/m]
51	0,7	0,18	35	96
63	0,7	0,15	42	115
70	0,6	0,13	49	128
80	0,5	0,09	56	154
102	0,4	0,08	70	200
127	0,4	0,07	92	254
152	0,2	0,05	105	308
160	0,15	0,05	110	331
180	0,15	0,05	130	438
203	0,15	0,04	140	492
254	0,08	0,03	175	600

CERTIFICATIONS

MATERIAL PROTECTION

FIRE REACTION

Count tests: JIS L 1902 Testing the antibacterial activity and efficacy on textile products Country: Japan Standard: JIS L 1902 Test time: 7 days, 4 days pre-treatment Field of application: Hygienic materials like textiles, food service, hygiene Sample size: Test specimen with 0.4 g to 0.6 g Document No.: W_2.2.1.1_L1902_0000109	ANTIMICROBIAL PROTECTION MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate. Sanitized antiviral performance Material Protection Hygiene Function	IT Class 1 (D.M. 26/06/84) Omologation nr.: RE1205C20D100011 EU Class B-s1, d0 (EN 13501-1:2019)
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GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica Srl

APPLICATIONS

OEM	Residential	Smooth surface	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant
Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free	Building	Transport	Air Conditioning	CMV	Non-magnetic*
Wall Trace	CMV transport means	CMV mech. means	Prolonged anti condensation	Recreational Boats				

*on request

WIRE OPTIONS

AM non-magnetic inox wire

ADDITIVE OPTIONS

UV * anti UV

SERVICE OPTIONS

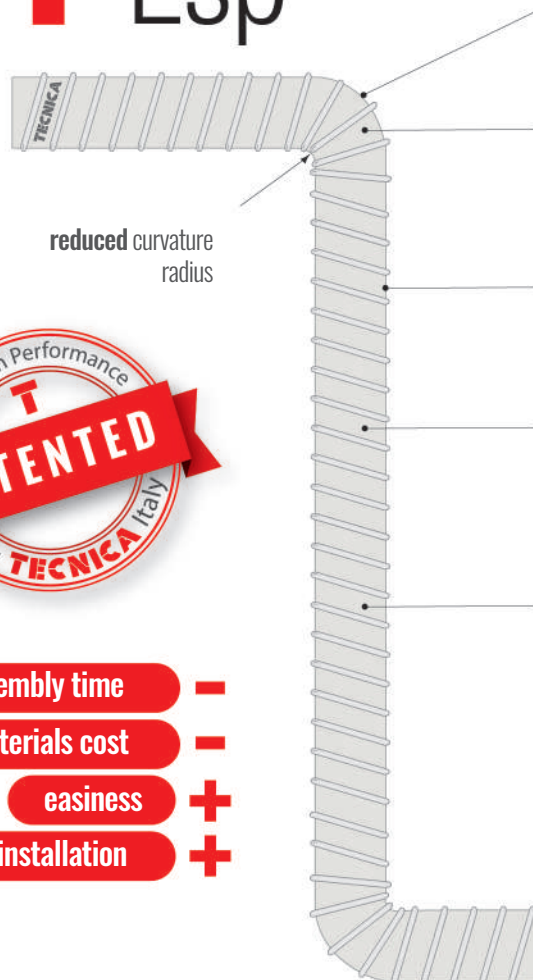
MP customized marking

TESTS PERFORMED

TEST	METHOD	OUTCOMES
λ Thermal conductivity Coefficient (wall thickness 4mm)	UNI EN 12664:2002	T = 0°C - 0,032 W/mK
		T = 10°C - 0,033 W/mK
		T = 30°C - 0,035 W/mK
		T = 60°C - 0,038 W/mK
Resistance to aggression by chemical agents	Test performed on non-insulated SA10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damage
		AMMONIA No modification and/or damage
		HIGH CONC. DEGREASER No modification and/or damage
		COOLANT FLUID No modification and/or damage
Maximum operating temperature peak	Test performed on non-insulated SA10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.
Example of use limits in order to avoid the risk of condensation on the external wall	Option 1 Duct Ø 102	Flow rate temperature 15° Room Temperature 34° Room relative humidity 70%
	Option 2 Duct Ø 102	Flow rate temperature 10°C Room Temperature 28°C Room relative humidity 70%
Duct airtightness class	Test performed on non-insulated SA10/ESP duct - EN 12237 - EN 1507 - EN 12599	Class D
	Test performed on non-insulated SA10/ESP duct - EN 13180	Compliant

INSTALLATION FEATURES

T-EspTM



reduced curvature radius



assembly time



materials cost



easiness



quick installation



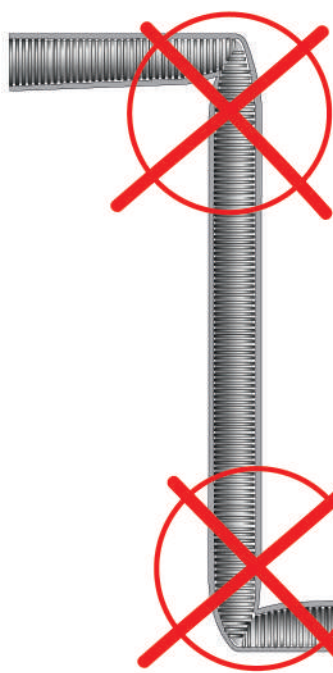
No limitation to degrees of curvature on the products

Reduced pressure drop as the internal section remains unchanged even in the points of curvature

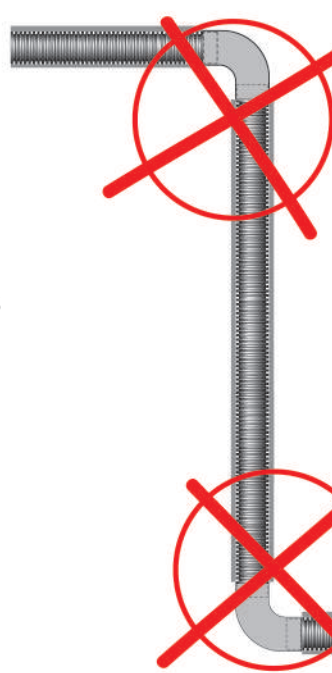
Single wall in netted closed cell of expanded polyethylene foam (Coeff. $R = 0,12\text{m}^2\text{K/W}$ - wall thickness 4mm)

Lightness and self-supporting thanks to the reinforced structure with a spiral steel wire that also allows the internal section to remain unchanged at the points of curvature

Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system



no risk of crushing in curves with tight radius



no connection systems or special pieces are required in the curves

corrugated ducts



Sleeve SA10/ESP Patented MasterSan™

Insulating sleeve produced with exclusive technology by TECNICA SRL made of:

- Additivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam.
- External protection in additivated polyolefin resins film.

The assembly of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

MasterSan™
in collaboration with:



TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	WORKING TEMPERATURE	PRODUCTION DIAMETERS	AIR SPEED	PRESSURE	CURVATURE RADIUS
Grey	10m standard	-20° + 90°C (peak +115°C)	from 40mm to 254mm	max 20m/sec	max 200 mmH ₂ O	1,2 - 1,8 x Ø

PRODUCTION DIAMETERS

40*	51	63	70	76	80	90*	102	110*	121*
127	133*	140*	152	160	165	180	203	254	

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

CERTIFICATIONS

MATERIAL PROTECTION



ANTIMICROBIAL PROTECTION

MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate.



FIRE REACTION

IT

Class 1 (D.M. 26/06/84)

EU

Class B-s2, d0 (EN 13501-1:2009)

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica Srl

APPLICATIONS

OEM	Residential	Smooth surface	Easy Pack	Mold resistant	Microorganism Resistant	REACH Certifie	RoHS Certifie	Building

TESTS PERFORMED

TEST	METHOD	OUTCOMES
Resistance to aggression by chemical agents	Test performed on non-insulated SA10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damag
		AMMONIA No modification and/or damag
		HIGH CONC. DEGREASER No modification and/or damag
		COOLANT FLUID No modification and/or damag
Maximum operating temperature peak	Test performed on non-insulated SA10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.



SA10/ESP 8mm Patented MasterSan™



Flexible hose produced with exclusive technology by TECNICA SRL made of:

- Additivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam (th. 8mm).
- External protection in additivated polyolefin resins film.
- Embedded steel wire helix.

The assembly of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

Thermal resistivity at 20°C $R = 0,24\text{m}^2 \text{ K/W}$ (UNI EN 12664:2002)

MasterSan™
in collaboration with:



TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	WORKING TEMPERATURE	PRODUCTION DIAMETERS	AIR SPEED	PRESSURE	CURVATURE RADIUS
Grey	10m standard	-20° + 90°C (peak +115°C)	from 40mm to 254mm	max 20m/sec	max 200 mmH ₂ O	1,2 - 1,8 x Ø

PRODUCTION DIAMETERS

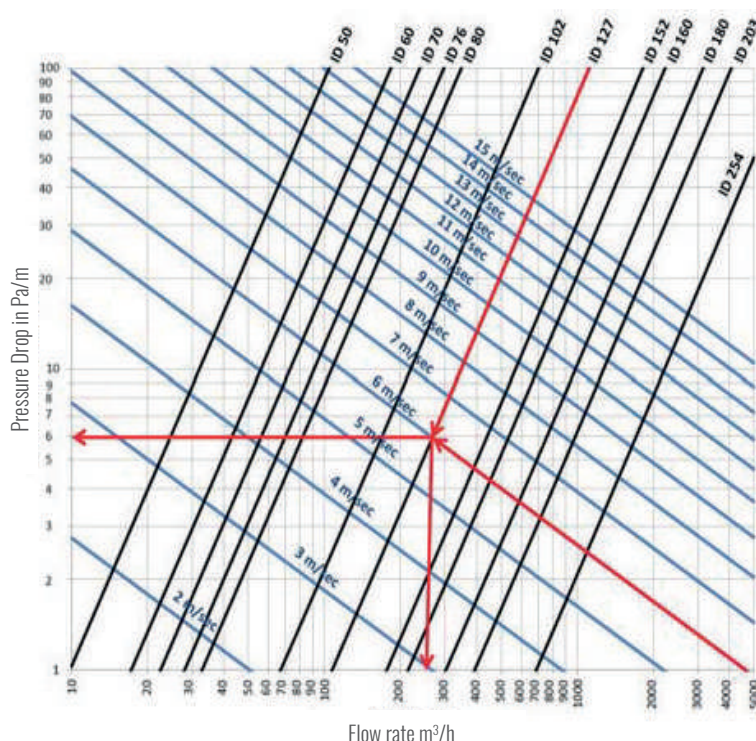
40*	51	63	70	76	80	90*	102	110*	121*
127	133*	140*	152	160	165	180	203	254	

*Diameters available on request

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PRESSURE DROPS DIAGRAM

(Air Temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

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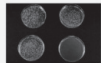
DIAMETER [mm]	AIR SPEED 8m/s		AIR SPEED 10m/s	
	WORKING PRESSURE [bar]	WORKING VACUUM [bar]	CURVATURE RADIUS [mm]	WEIGHT [gr/m]
51	0,7	0,18	35	96
63	0,7	0,15	42	115
70	0,6	0,13	49	128
80	0,5	0,09	56	154
102	0,4	0,08	70	200
127	0,4	0,07	92	254
152	0,2	0,05	105	308
160	0,15	0,05	110	331
180	0,15	0,05	130	438
203	0,15	0,04	140	492
254	0,08	0,03	175	600

CERTIFICATION

MATERIAL PROTECTION

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F. +39 0522 650212
www.tecnica.it

Count tests: JIS L 1902



Testing the antibacterial activity and efficacy on textile products

Country / Test:
Japan / JIS L 1902

Test time:
7 days, 4 days pre-treatment

Field of application:
Hygienic materials like textiles, food safety, hygiene

Sample size:
Test specimen with 2.5 g (1 x 10 cm)

Scope:
This method is applied for the quantitative determination of the antibacterial effectiveness of non-diffusible active substances.

Abstract:
Specimens are contaminated with a standard number of a given micro-organism (usually: 10⁶ bacteria for 10 hours at 37°C, the micro-organisms on the test material are washed off with a defined amount of water. The number of colony forming units (CFU) is determined and expressed logarithmically. From this number the antibacterial effect can be calculated.

Test assessment:
Evaluation is based on the difference in bacteria count (in terms of CFU) between one and 10 hour contact with the test material. Germ reduction: "Significant Activity" (1% germ reduction) and "prolonged time".

Test Organisms:
Bacteriostatic agent ATCC 4330
Escherichia coli ATCC 11105
Bacterial spores ATCC 4242

Explanation of the bacteriostatic activity:
0.0%: germ growth, insufficient antibacterial effect
0.1% to 0.9%: no significant germ reduction, insufficient antibacterial effect
≥10%: significant germ reduction, good antibacterial effect.



ANTIMICROBIAL PROTECTION

MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate.



Document No. 06.2.2.11_LB_1_000_000010

FIRE REACTION

EU

Class B-s2, d0 (EN 13501-1:2009)

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica Srl

APPLICATIONS

OEM	Residential	Smooth surface	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant
Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free	Building	Transport	Air Conditioning	CMV	Non-magnetic*
Wall Trace	CMV transport means	CMV mech. means	Prolonged anti condensation	Recreational Boats				

*on request

WIRE OPTIONS

AM non-magnetic inox wire

ADDITIVE OPTIONS

UV * anti UV

SERVICE OPTIONS

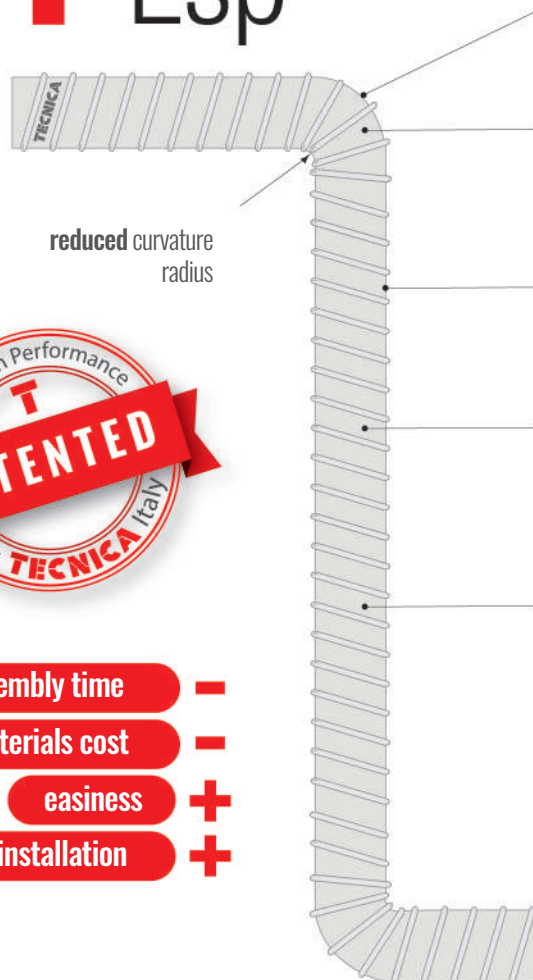
MP customized marking

TESTS PERFORMED

TEST	METHOD	OUTCOMES
λ Coefficient of thermal conductivity	UNI EN 12664:2002	T = 0°C - 0,032 W/mK
		T = 10°C - 0,033 W/mK
		T = 30°C - 0,035 W/mK
		T = 60°C - 0,038 W/mK
Resistance to aggression by chemical agents	Test performed on non-insulated SA10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damage
		AMMONIA No modification and/or damage
		HIGH CONC. DEGREASER No modification and/or damage
		COOLANT FLUID No modification and/or damage
Maximum operating temperature peak	Test performed on non-insulated SA10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.
Example of use limits in order to avoid the risk of condensation on the external wall	Option 1 Duct Ø 102	Flow rate temperature 10°C Room Temperature 45°C Room relative humidity 70%
	Option 2 Duct Ø 102	Flow rate temperature 5°C Room Temperature 30°C Room relative humidity 80%
Duct airtightness class	Test performed on non-insulated SA10/ESP duct - EN 12237 - EN 1507 - EN 12599	Class D
	Test performed on non-insulated SA10/ESP duct - EN 13180	Compliant

INSTALLATION FEATURES

T-EspTM



assembly time



materials cost



easiness



quick installation



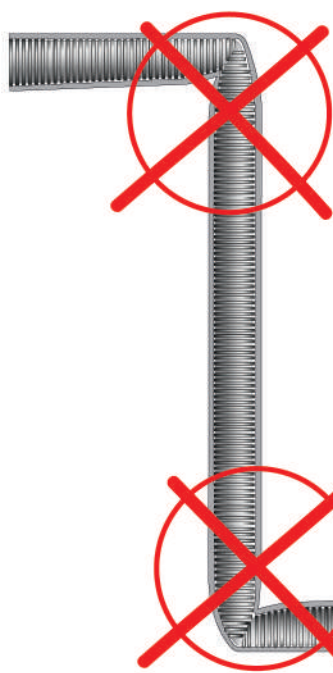
No limitation to degrees of curvature on the products

Reduced pressure drop as the internal section remains unchanged even in the points of curvature

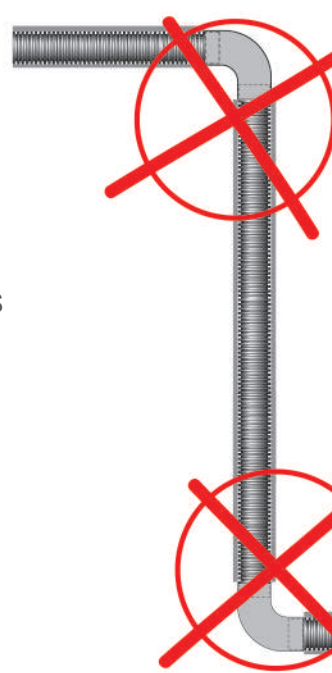
Single wall in netted closed cell of expanded polyethylene foam (R-value 0,24 m²K/W)

Lightness and self-supporting thanks to the reinforced structure with a spiral steel wire that also allows the internal section to remain unchanged at the points of curvature

Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system



no risk of crushing in curves with tight radius



no connection systems or special pieces are required in the curves

corrugated ducts



SA10/ESP Therm Patented MasterSan™

Flexible hose produced with exclusive technology by TECNICA SRL made of:

- Additivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam.
- External protection in additivated polyolefin resins film.
- Embedded steel wire helix.
- Thermo-insulating covering in polyester fibre (th. 25mm-16kg/m³).
- Outer aluminized polyolefin film protection (flame retardant).

The assembly of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

Insulation: 25mm / 16kg/m³ - standard

50mm / 16kg/m³ - on request

Thermal resistivity at 20°C $R = 0,66m^2 K/W$ (UNI EN 12664:2002)

MasterSan™
in collaboration with:



TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	WORKING TEMPERATURE	PRODUCTION DIAMETERS	AIR SPEED	PRESSURE	CURVATURE RADIUS
Grey	10m standard	-20° + 90°C (peak +115°C)	from 70mm to 254mm	max 20m/sec	max 200 mmH ₂ O	1,2 - 1,8 x Ø

PRODUCTION DIAMETERS

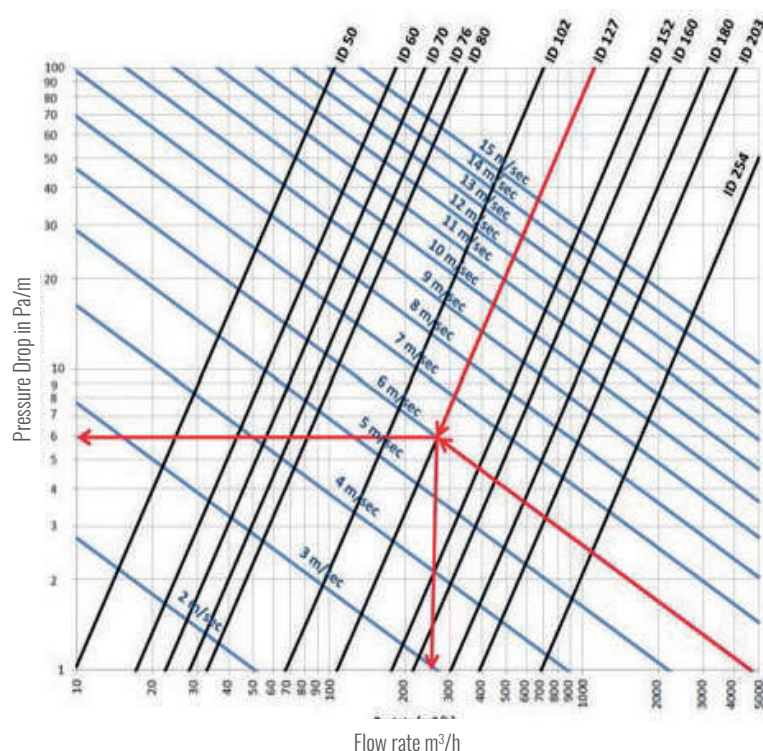
70*	76*	80	90*	102	127	152	160	165	180	203	254			
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air Temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of the other diameters, use the beside diagram.

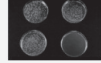
DIAMETER [mm]	AIR SPEED 8m/s		AIR SPEED 10m/s	
	WORKING PRESSURE [bar]	WORKING VACUUM [bar]	CURVATURE RADIUS [mm]	WEIGHT [gr/m]
70	0,6	0,13	49	128
80	0,5	0,09	56	154
102	0,4	0,08	70	200
127	0,4	0,07	92	254
152	0,2	0,05	105	308
160	0,15	0,05	110	331
180	0,15	0,05	130	438
203	0,15	0,04	140	492
254	0,08	0,03	175	600

CERTIFICATIONS

MATERIAL PROTECTION

Document No. 16.2.2.11-LEI-1902_20200709

Count tests: JIS L 1902



Testing the antibacterial activity and efficacy on textile products

Country / Test:
Japan / JIS L 1902

Test time:
7 days, 4 days pre-treatment

Test application:
Antibacterial materials like textiles, food storage, hygiene

Sample size:
Test specimen with 0.4 g (0.4 g) is tested

Scope:
This method is applied for the quantitative determination of the antibacterial effectiveness of non-dissolvable active substances.

Abstract:
Specimens are contaminated with a standard number of a given micro-organism (bacteria). After incubation for 72 hours at 37°C, the micro-organisms on the test material are washed off with a defined amount of medium. The number of colony forming units (CFU) is determined and compared to the control. From this number the antibacterial effect can be calculated.

Test assessment:
Evaluation is based on the difference in bacteria count (in terms of CFU) between control and 72 hours contact with the test material. Germ reduction: "Significant Activity" if > 99% germ reduction and germ reduction.

Test organism:
Escherichia coli ATCC 8739
Staphylococcus aureus ATCC 12228
Bacterial suspension: ATCC 4330

Explanation of the bacteriostatic activity:
0-1%: germ growth, insufficient antibacterial effect
1-10%: no significant germ reduction, insufficient antibacterial effect
10-99%: significant germ reduction, good antibacterial effect.

ANTIMICROBIAL PROTECTION

MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate.



EU

FIRE REACTION

Vapor barrier:
class B-s1, d0 (EN 13823:2010)

Inner tube and Thermal insulation:
class B-s2, d0 (EN 13501-1:2009)

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica Srl

APPLICATIONS

OEM	Residential	Smooth surface	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant
Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free	Building	Transport	Air Conditioning	CMV	Non-magnetic*
Wall Trace	CMV transport means	CMV mech. means	Prolonged anti condensation	Recreational Boats				

*on request

WIRE OPTIONS

AM non-magnetic inox wire

ADDITIVE OPTIONS

UV * anti UV

SERVICE OPTIONS

MP customized marking

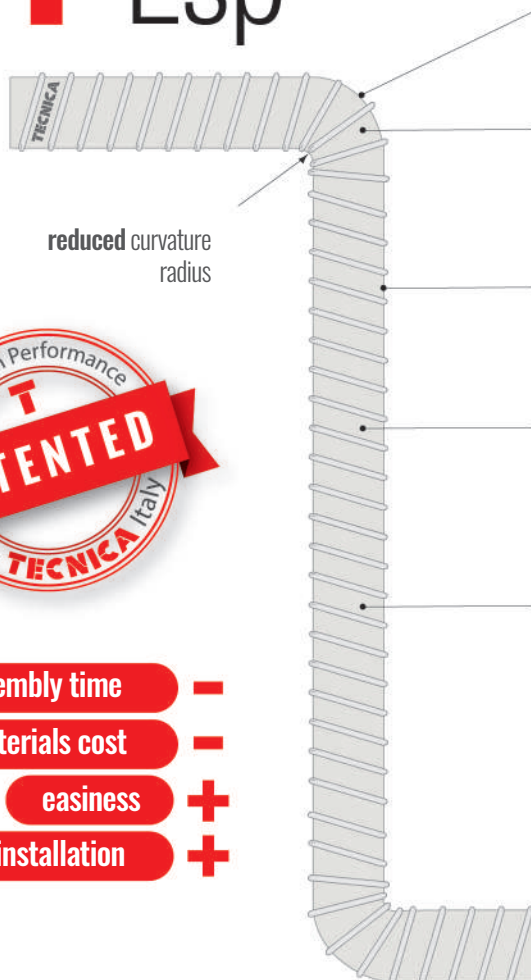
*on request

TESTS PERFORMED

TEST	METHOD	OUTCOMES
λ Coefficient of thermal conductivity	UNI EN 12664:2002	T = 0°C - 0,039 W/mK
		T = 10°C - 0,042 W/mK
		T = 30°C - 0,046 W/mK
		T = 60°C - 0,054 W/mK
Resistance to aggression by chemical agents	Test performed on non-insulated SA10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damage
		AMMONIA No modification and/or damage
		HIGH CONC. DEGREASER No modification and/or damage
		COOLANT FLUID No modification and/or damage
Maximum operating temperature peak	Test performed on non-insulated SA10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.
Example of use limits in order to avoid the risk of condensation on the external wall	Option 1 Duct Ø 102	Flow rate temperature 5°C Room temperature 45°C Room relative humidity 90%
	Option 2 Duct Ø 102	Flow rate temperature 0°C Room temperature 40°C Room relative humidity 90%
Duct airtightness class	Test performed on non-insulated SA10/ESP duct - EN 12237 - EN 1507 - EN 12599	Class D
	Test performed on non-insulated SA10/ESP duct - EN 13180	Compliant

INSTALLATION FEATURES

T-EspTM



reduced curvature radius



assembly time



materials cost



easiness



quick installation



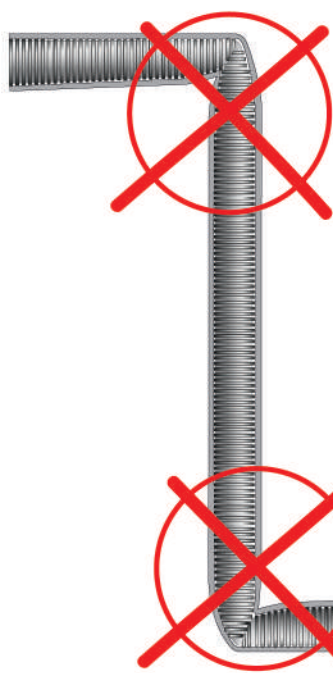
No limitation to degrees of curvature on the products

Reduced pressure drop as the internal section remains unchanged even in the points of curvature

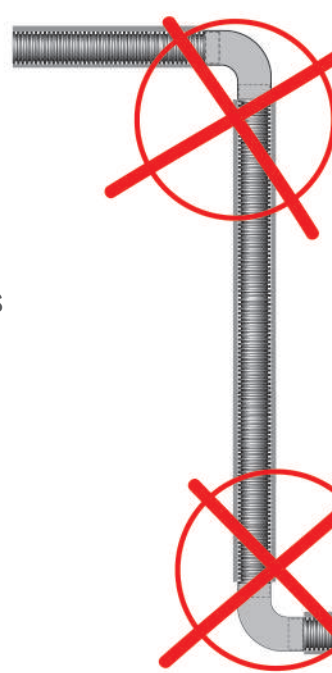
Single wall in netted closed cell of expanded polyethylene foam (R-value 0,66 m²K/W)

Lightness and self-supporting thanks to the reinforced structure with a spiral steel wire that also allows the internal section to remain unchanged at the points of curvature

Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system



no risk of crushing in curves with tight radius



no connection systems or special pieces are required in the curves

corrugated ducts



SA10 MasterSan™



Flexible hose made of addivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection with steel wire helix.

MasterSan™
in collaboration with:



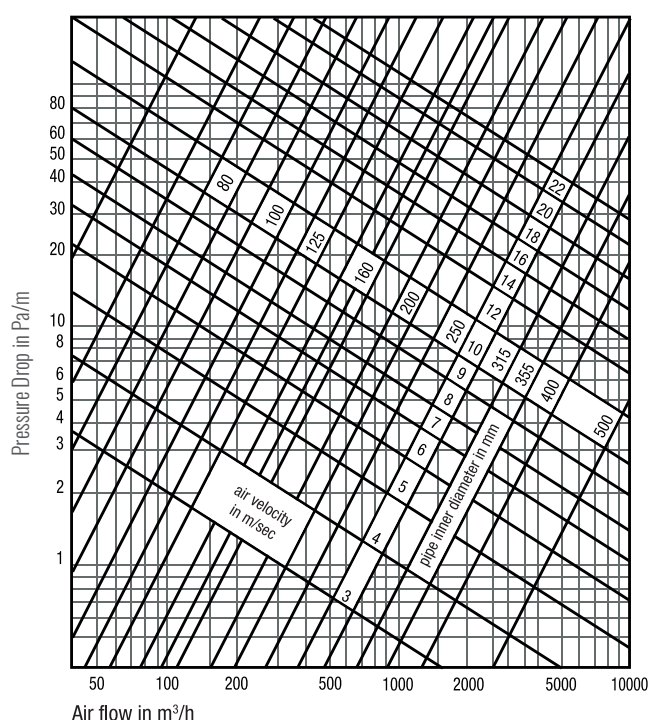


TECHNICAL SPECIFICATIONS AND USAGE LIMIT												
COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE						
Grey	10 m standard	from 80 to 406 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 20 m/sec	max 200 mmH ₂ O						

PRODUCTION DIAMETERS												
80	102	127	152	160	165*	180	203	254	305	318	356	406

*Diameters available on request
Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM
(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETERS	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m3/h]	[Pa/m]	[m3/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4



SA10 Therm MasterSan™



Flexible hose made of addivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection with steel wire helix.. Thermo-insulating covering in polyester fibre (thickness 25mm/16kg/m³). Outer aluminized film protection (flame retardant).
Insulation: 25mm / 16kg/m³ - standard
50mm / 16kg/m³ - on request

MasterSan™
in collaboration with:



Thermal resistivity at 20°C **R = 0,58m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Internal hose Grey - Sheath Aluminium	10 m standard	from 80 to 406 mm	-20°C / +90°C (peak +110°C)	0,8 - 1,5 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

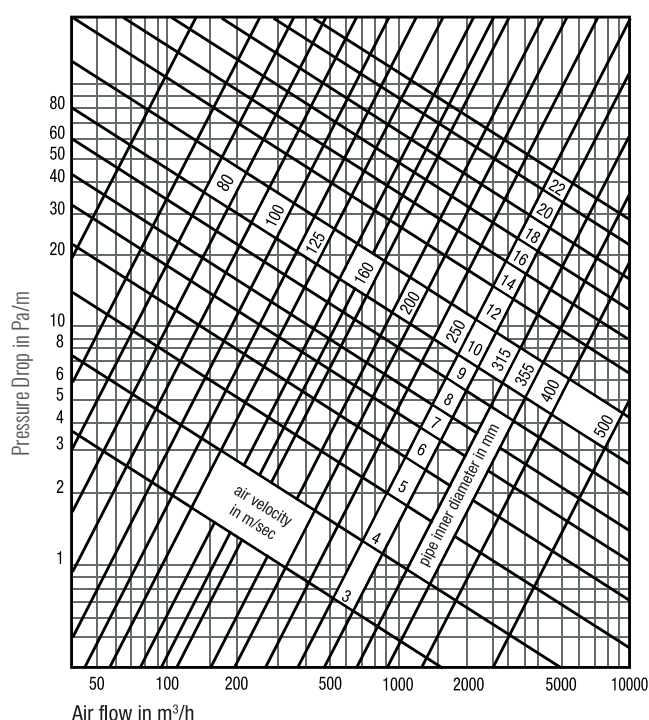
80	102	127	152	160	165*	180	203	254	305	318	356	406
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)

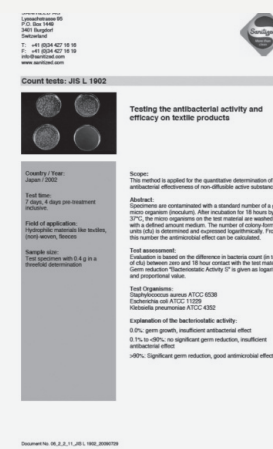


PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETERS	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]				
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4

CERTIFICATIONS

MATERIAL PROTECTION		FIRE REACTION	
 ANTIMICROBIAL PROTECTION MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate. Sanitized antiviral performance Material Protection Hygiene Function	IT	Class 1 (D.M. 26/06/84)	
		EU	Inner tube and vapor barrier: class B-s1, d0 (en 13823:2010) Thermal insulation: class B-s2, d0 (uni en 13501-1:2009)
	FR	Inner tube and vapor barrier: class M1 (AFNOR NF P 92-507 § 3.1.2) Thermal insulation: class M1 NF P 92-507:2004	

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

OEM	Residential	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant	Calibrated Diameters*
REACH Certifie	RoHS Certifie	Halogen Free	Compact Version*	Building	Air Conditioning	CMV	Non-magnetic*	CMV mech. means
Recreational Boats								

*on request



AR10 MasterSan™

Flexible hose made of addivated polyolefin resins film reinforced with polyester mesh with anti-bacterial, anti-mildew and anti-viral material protection with steel wire helix.

MasterSan™
in collaboration with:



TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Grey	10 m standard	from 80 to 610 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

80	89*	102	110*	121*	127	133*	140*	152	160	180	203
228*	254	279*	305	318	356	406	457*	508	559*	610	

*Diameters available on request

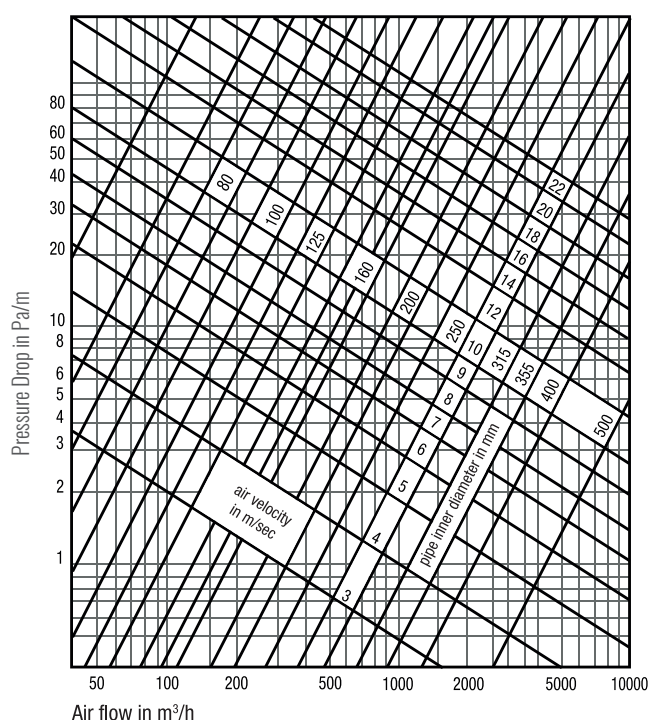
Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)

PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.



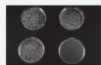
DIAMETERS	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]				
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATIONS

MATERIAL PROTECTION

TECNICA srl
Via degli Intarsiatori Rolesi 1
42047 Rolo (RE)
T. +39 0522 650211
F. +39 0522 650212
www.tecnica.it

Count tests: JIS L 1902



Testing the antibacterial activity and efficacy on textile products

Country / Test:

Japan / JIS L 1902

Test time:

7 days, 4 days pre-treatment

Field application:

Hygienic materials like textiles,

food service, home

Sample size:

Test specimen with 2.5 g (0.1 x

threshold) determination

Test specimen:

2.5 g (0.1 x threshold)

Test specimen:

2.5 g (0.1 x threshold)

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2.5 g (0.1 x threshold)

Test specimen:

2.5 g (0.1 x threshold)

Test specimen:

2.5 g (0.1 x threshold)



ANTIMICROBIAL PROTECTION

MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate.



IT

Class 1 (D.M. 26/06/84)

EU

Class B-s1, d0 (EN 13823:2010)

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

OEM	Residential	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant	Calibrated Diameters*
REACH Certifie	RoHS Certifie	Halogen Free	Compact Version*	Industry	Building	Air Conditioning	CMV	Non-magnetic*
CMV transp. Means	CMV Mech. Means	Recreational Boats						

*on request



AR10 Therm MasterSan™

Flexible hose made of addivated polyolefin resins film reinforced with polyester mesh with anti-bacterial, anti-mildew and anti-viral material protection with steel wire helix. Thermo-insulating covering in polyester fibre (thickness 25mm/16kg/m³), outer aluminized film protection (flame retardant).

Insulation: 25mm / 16kg/m³ - standard
50mm / 16kg/m³ - on request

MasterSan™
in collaboration with:



Thermal resistivity at 20°C **R = 0,58m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Internal hose Grey - Sheath Aluminium	10 m standard	from 80 to 610 mm	-20°C / +90°C (peak +110°C)	0,8 - 1,5 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

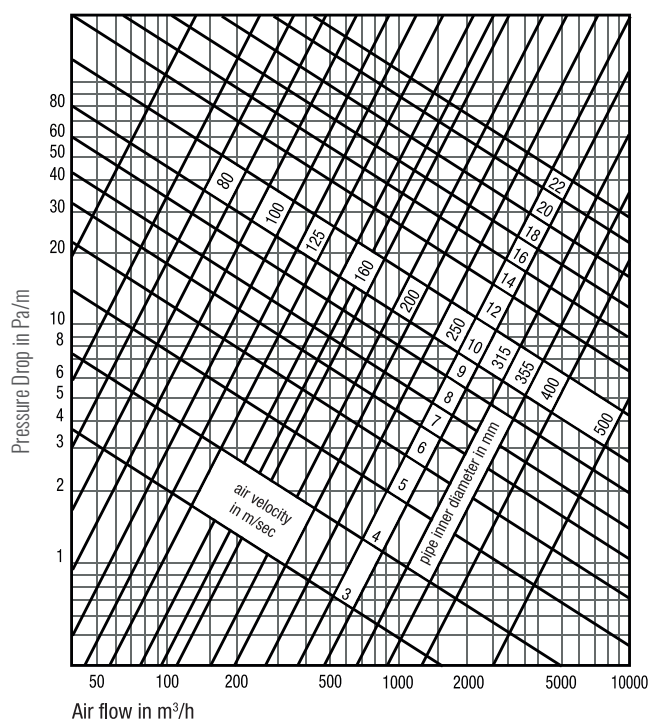
80	89*	102	110*	121*	127	133*	140*	152	160	180	203
228*	254	279*	305	318	356	406	457*	508	559*	610	

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

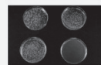
DIAMETERS	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATIONS

MATERIAL PROTECTION

Document No. 06_2.2.11_LAB_1905_20090709

Count tests: JIS L 1902



Testing the antibacterial activity and efficacy on textile products

Country / Test:
Japan / JIS L 1902

Test time:
7 days, 4 days pre-treatment

Field application:
Hygienic materials like textiles, food service, home

Sample size:
Test specimens with 2.5 g (0.1 x threshold) determination

Scope:
This method is applied for the quantitative determination of the antibacterial effectiveness of non-diffusible active substances.

Abstract:
Specimens are contaminated with a standard number of a given micro-organism inoculum. After incubation for 16 hours at 37°C, the micro-organisms on the test material are washed off with a defined amount of water. The number of colony forming units (CFU) is determined and expressed logarithmically. From this number the antibacterial effect can be calculated.

Test assessment:
Evaluation is based on the difference in bacteria count (in terms of CFU) between one and 16 hour contact with the test material. Germ reduction: "Significant Activity" if a germ reduction of 99% or more is observed.

Test organism:
Bacteriostatic medium ATCC 4330
Enterobacter and ATCC 11229
Bacteriostatic medium ATCC 4330

Explanation of the bacteriostatic activity:
0.0% germ growth, insufficient antibacterial effect
0.1% to 99.9% no significant germ reduction, insufficient antibacterial effect
≥99.9% significant germ reduction, good antibacterial effect.

ANTIMICROBIAL PROTECTION

MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate.



FIRE REACTION

IT

Class 1 (D.M. 26/06/84)

EU

Inner tube and vapor barrier:
B-s1, d0 (EN 13823:2010)

Thermal insulation:
B-s2, d0 (UNI EN 13501-1:2009)

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

OEM	Residential	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant	Calibrated Diameters*
REACH Certifie	RoHS Certifie	Halogen Free	Compact Version*	Industry	Building	Air Conditioning	CMV	Non-magnetic*
CMV transp. Means	CMV Mech. Means	Prolonged anti condensation	Recreational Boats					

*on request



AL/SA MasterSan™

Flexible hose made with AL (aluminium) wall coupled to addivated polyolefin resins film with anti-bacterial, anti-mildew and anti-viral material protection. Inner helix made of steel wire.

The set of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

MasterSan™
in collaboration with:



TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Internal Grey / Outer Aluminium	10 m standard	from 82 to 508 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

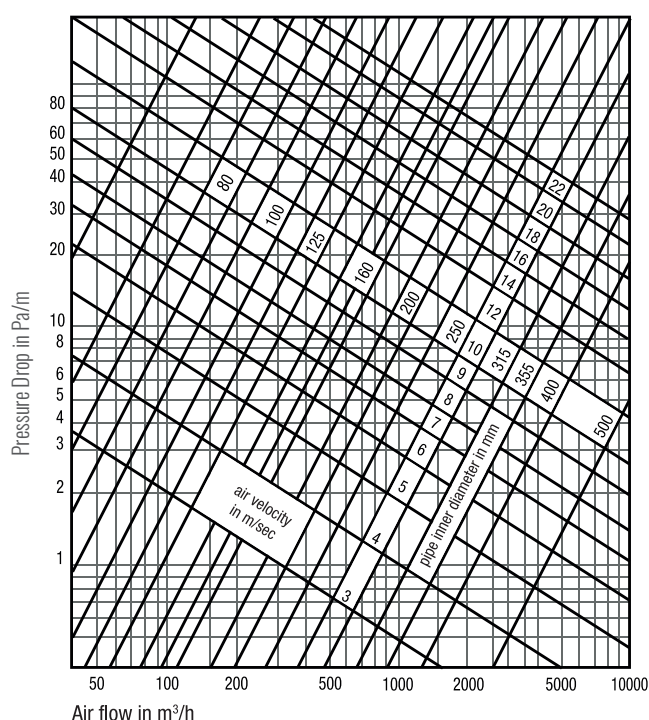
82	102	127	152	160	180	203	228*	254	305	318	356	406	457*	508*
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETERS	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATIONS

MATERIAL PROTECTION	ALUMINIUM WALL	SA10 WALL
ANTIMICROBIAL PROTECTION MasterSan™ is produced with new generation polyolefin film with Sanitized® antimicrobial and antiviral technology which protects the internal surface from damages due to microbial load and reduces the formation of potential microbial odors inside the ventilation system for a better IAQ rate. Count tests: JIS L 1902 Testing the antibacterial activity and efficacy on textile products Country / test: Japan / JIS L 1902 Test time: 7 days, 6 days pre treatment minimum Test of application: Antibacterial activity on textile, fabric, paper, etc. Sample size: Ten specimens with 2.5 g in a standard determination Scope: This method is applied for the quantitative determination of the antibacterial effectiveness of non-diffusible active substances. Abstract: Specimens are contaminated with a standard number of a given microorganism inoculum. After incubation for 72 hours at 37°C, the microorganisms on the test material are washed off with a defined amount of water. The number of colony forming units (cfu) is determined and expressed logarithmically. From this number the antibacterial effect can be calculated. Test assessment: Evaluation is based on the difference in bacteria count (in terms of cfu) between one and 10 days contact with the test material. Germ reduction (logarithmic) activity (7% germ reduction) and protective effect. Test Organisms: Bacteriophage control ATCC 4359 Escherichia coli ATCC 12228 Klebsiella pneumoniae ATCC 4324 Explanation of the bacteriostatic activity: 0.0% germ growth, no antibacterial effect 0.1% to 0.9% no significant germ reduction, no antibacterial effect ≥0.9% significant germ reduction, good antibacterial effect. Sanitized® antiviral performance Material Protection Hygiene Function	Class 1 (D.M. 26/06/84)	Class 1 (D.M. 26/06/84)

GREEN BUILDING

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WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

OEM	Residential	Flexibility	Easy Pack	Self-extinguishing	Mold Resistant	Microorganism Resistant	Tear Resistant	Calibrated Diameters*
REACH Certifie	RoHS Certifie	Halogen Free	Compact Version*	Industry	Building	Air Conditioning	CMV	Non-magnetic*
CMV transp. Means	CMV Mech. Means	Recreational Boats						

*on request



F10/ESP Patented

Flexible hose produced with exclusive technology by TECNICA SRL made of:

- Additivated polyolefin resins film.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam.
- External protection in additivated polyolefin resins film.
- Embedded steel wire helix.

The set of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

Thermal resistivity at 20°C **R = 0,12m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Black external / Grey internal	10 m standard	from 40mm to 254mm	-20° + 90°C (peak +115°C)	1,2 - 1,8 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

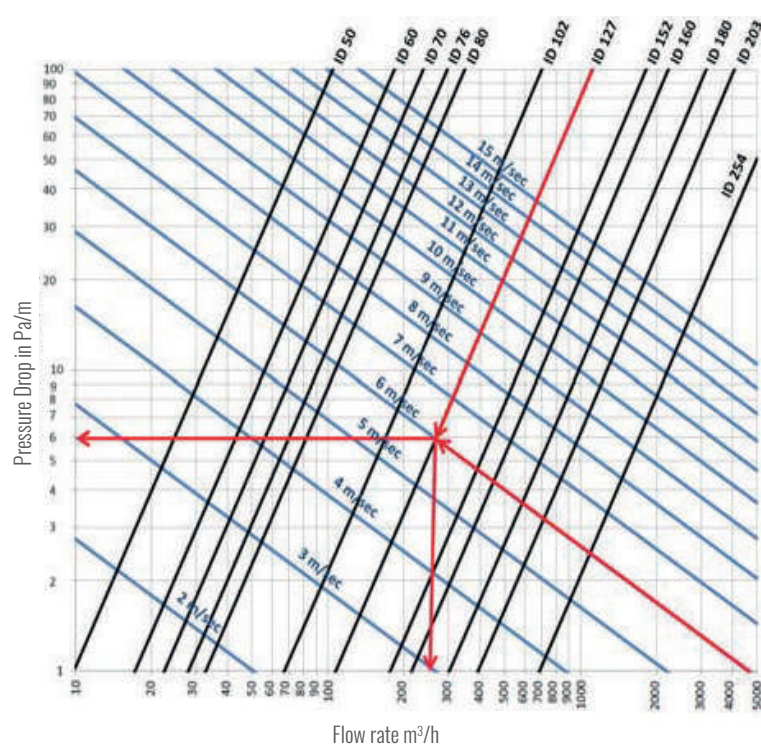
40*	51	63	70	76	80	90*	102	110*	121*
127	133*	140*	152	160	165	180	203	254	

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	WORKING PRESSURE	WORKING VACUUM	CURVATURE RADIUS	WEIGHT
[mm]	[bar]	[bar]	[mm]	[gr/m]
51	0,7	0,18	35	96
63	0,7	0,15	42	115
70	0,6	0,13	49	128
80	0,5	0,09	56	154
102	0,4	0,08	70	200
127	0,4	0,07	92	254
152	0,2	0,05	105	308
160	0,15	0,05	110	331
180	0,15	0,05	130	438
203	0,15	0,04	140	492
254	0,08	0,03	175	600

CERTIFICATION FOR FIRE REACTION

IT

Internal/external Film: Class 1 (D.M. 26/06/84)
PES foam: Class 1 (D.M. 26/06/84)

GREEN BUILDING

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WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

OEM	Residential	Smooth surface	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie
RoHS Certifie	Halogen Free	Building	Transport	Air Conditioning	CMV	Non-magnetic*	Wall Trace	CMV transp. Means
CMV Mech. Means	Prolonged Anti condensation	Recreational Boats						

*on request

WIRE OPTIONS

AM non-magnetic inox wire

ADDITIVE OPTIONS

U V * anti UV

SERVICE OPTIONS

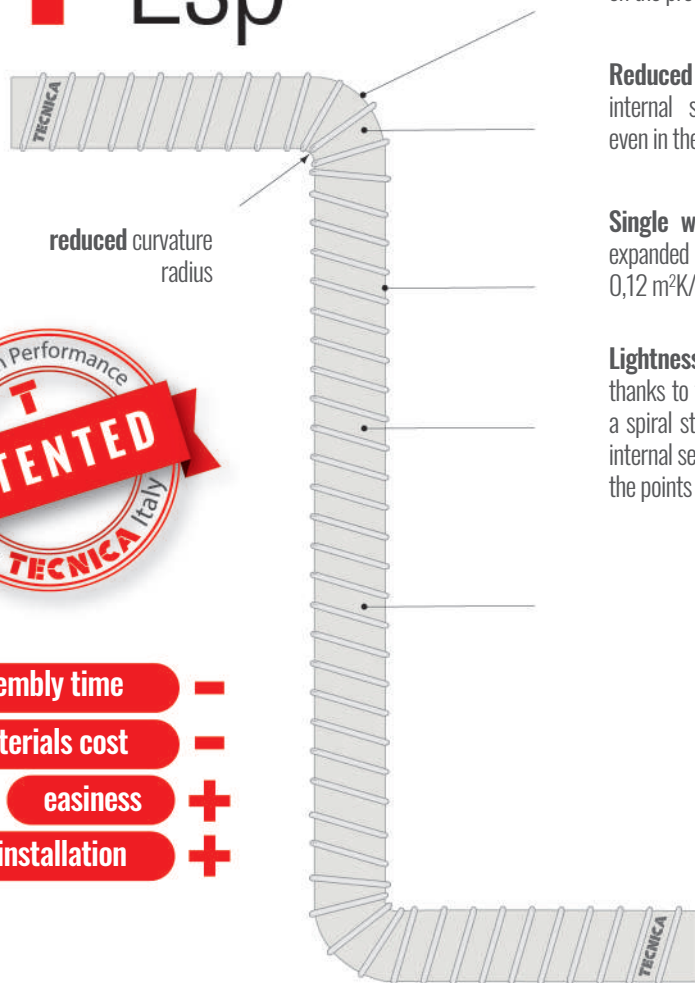
MP customized marking

TESTS PERFORMED

TEST	METHOD	OUTCOMES
λ Coefficient of thermal conductivity	UNI EN 12664:2002	T = 0°C - 0,032 W/mK
		T = 10°C - 0,033 W/mK
		T = 30°C - 0,035 W/mK
		T = 60°C - 0,038 W/mK
Resistance to aggression by chemical agents	Test performed on non-insulated F10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damage
		AMMONIA No modification and/or damage
		HIGH CONC. DEGREASER No modification and/or damage
		COOLANT FLUID No modification and/or damage
Maximum operating temperature peak	Test performed on non-insulated F10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.
Example of use limits in order to avoid the risk of condensation on the external wall	Option 1 Duct Ø 102	Flow rate temperature 15°C Room temperature 34°C Room relative humidity 70%
	Option 2 Duct Ø 102	Flow rate temperature 10°C Room temperature 28°C Room relative humidity 70%
Duct airtightness class	Test performed on non-insulated F10/ESP duct - EN 12237 - EN 1507 - EN 12599	Class D
	Test performed on non-insulated F10/ESP duct - EN 13180	Compliant

INSTALLATION FEATURES

T-EspTM



reduced curvature radius



assembly time



materials cost



easiness



quick installation



No limitation to degrees of curvature on the products

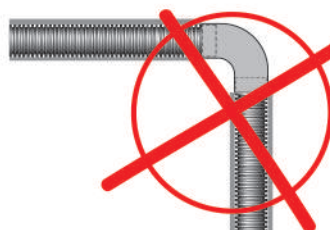
Reduced pressure drop as the internal section remains unchanged even in the points of curvature

Single wall in netted closed cell of expanded polyethylene foam (R-value 0,12 m²K/W)

Lightness and self-supporting thanks to the reinforced structure with a spiral steel wire that also allows the internal section to remain unchanged at the points of curvature

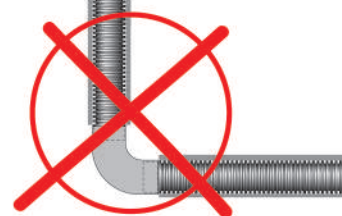


no risk of crushing in curves with tight radius



no connection systems or special pieces are required in the curves

corrugated ducts





Sleeve F10/ESP Patented

Insulating sleeve produced with exclusive technology by TECNICA SRL made of:

- Addivated polyolefin resins film.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam.
- External protection in addivated polyolefin resins film.

The assembly of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Black external / Grey internal	10 m standard	from 40mm to 254mm	-20° + 90°C (peak +115°C)	1,2 - 1,8 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

40*	51	63	70	76	80	90*	102	110*	121*
127	133*	140*	152	160	165	180	203	254	

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

CERTIFICATION FOR FIRE REACTION

IT	Internal/External Film: Class 1 (D.M. 26/06/84) PES foam: Class 1 (D.M. 26/06/84)
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GREEN BUILDING

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WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS						
						
OEM	Residential	Smooth surface	Easy Pack	REACH Certifie	RoHS Certifie	Building

TESTS PERFORMED		
TEST	METHOD	OUTCOMES
Resistance to aggression by chemical agents	Test performed on non-insulated F10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damag
		AMMONIA No modification and/or damag
		HIGH CONC. DEGREASER No modification and/or damag
		COOLANT FLUID No modification and/or damag
Maximum operating temperature peak	Test performed on non-insulated F10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.



F10/ESP Therm Patented

Flexible hose produced with exclusive technology by TECNICA SRL made of:

- Additivated polyolefin resins film.
- Thermo-insulating coating in netted and closed-cell of polyethylene foam.
- External protection in additivated polyolefin resins film.
- Embedded steel wire helix.
- Thermo-insulating covering in polyester fibre (th. 25mm/16kg/m³).
- Outer anti-steam protection in additivated polyolefin resin.

The assembly of materials for the construction of the flexible conduit does not require the use of chemical agents, glues or adhesives.

Insulation: 25mm / 16kg/m³ - standard
50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,66m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Black external / Grey internal	10 m standard	from 70mm to 254mm	-20° + 90°C (peak +115°C)	1,2 - 1,8 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

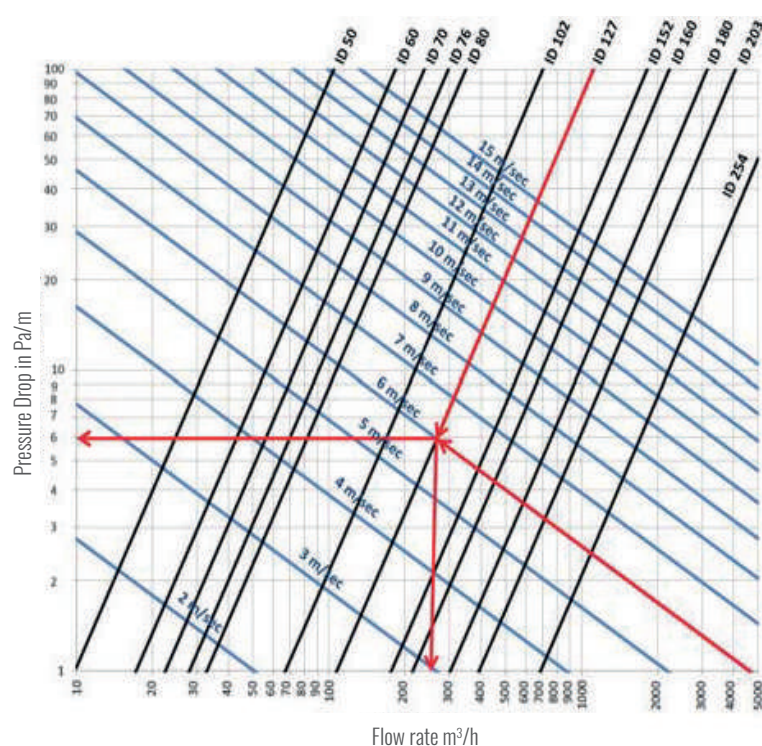
70*	76*	80	90*	102	127	152	160	165	180	203	254			
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check..

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	WORKING PRESSURE	WORKING VACUUM	CURVATURE RADIUS	WEIGHT
[mm]	[bar]	[bar]	[mm]	[gr/m]
70	0,6	0,13	49	128
80	0,5	0,09	56	154
102	0,4	0,08	70	200
127	0,4	0,07	92	254
152	0,2	0,05	105	308
160	0,15	0,05	110	331
180	0,15	0,05	130	438
203	0,15	0,04	140	492
254	0,08	0,03	175	600

CERTIFICATION FOR FIRE REACTION

IT	Internal/external Film: Class 1 (D.M. 26/06/84) PES foam: Class 1 (D.M. 26/06/84)
EU	Thermal insulation: class B-s2, d0 (EN 13501-1:2009) Sheath: class B-s1, d0 (EN 13501-1:2009)

GREEN BUILDING

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WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

OEM	Residential	Smooth surface	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie
RoHS Certifie	Halogen Free	Building	Transport	Air Conditioning	CMV	Non-magnetic*	Wall Trace	CMV transp. Means
CMV Mech. Means	Prolonged Anti condensation	Recreational Boats						

*on request

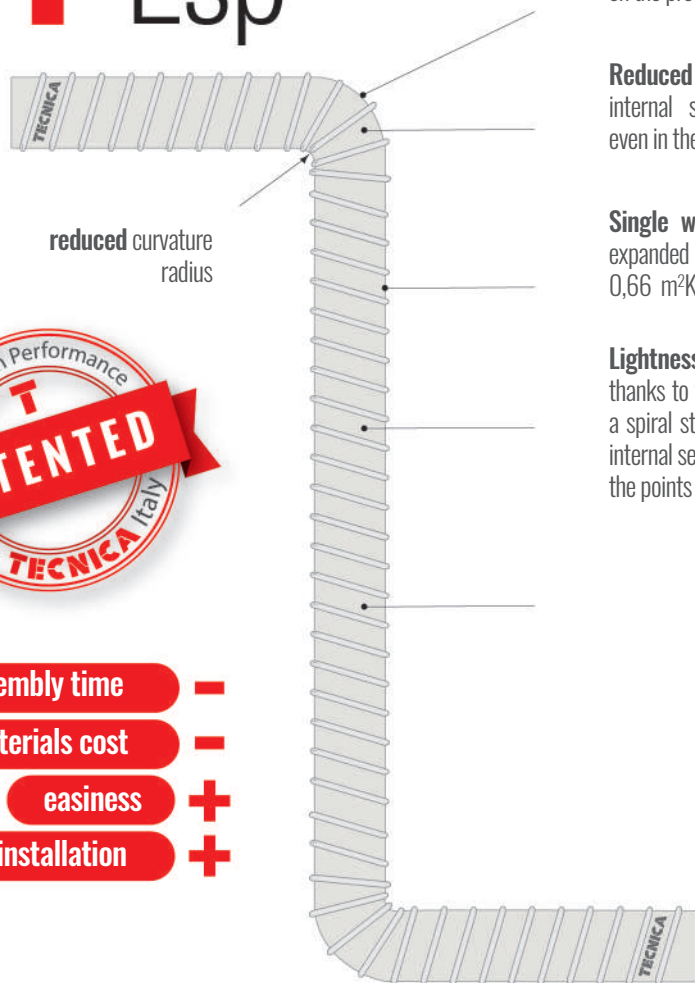
WIRE OPTIONS	ADDITIVE OPTIONS	SERVICE OPTIONS
AM non-magnetic inox wire	U V * anti UV	MP customized marking

TESTS PERFORMED

TEST	METHOD	OUTCOMES
λ Coefficient of thermal conductivity	UNI EN 12664:2002	T = 0°C - 0,039 W/mK
		T = 10°C - 0,042 W/mK
		T = 30°C - 0,046 W/mK
		T = 60°C - 0,054 W/mK
Resistance to aggression by chemical agents	Test performed on non-insulated F10/ESP duct - Application on the external surface of the specific chemical agent and check for any changes after 48h.	ETHANOL No modification and/or damage
		AMMONIA No modification and/or damage
		HIGH CONC. DEGREASER No modification and/or damage
		COOLANT FLUID No modification and/or damage
Maximum operating temperature peak	Test performed on non-insulated F10/ESP duct - Identification of the maximum temperature peak bearable by the duct and all its components.	+115°C no longer than 2min.
Example of use limits in order to avoid the risk of condensation on the external wall	Option 1 Duct Ø 102	Flow rate temperature 5°C Room temperature 45°C Room relative humidity 90%
	Option 2 Duct Ø 102	Flow rate temperature 0°C Room temperature 40°C Room relative humidity 90%
Duct airtightness class	Test performed on non-insulated F10/ESP duct - EN 12237 - EN 1507 - EN 12599	Class D
	Test performed on non-insulated F10/ESP duct - EN 13180	Compliant

INSTALLATION FEATURES

T-EspTM



reduced curvature radius



assembly time



materials cost



easiness



quick installation



No limitation to degrees of curvature on the products

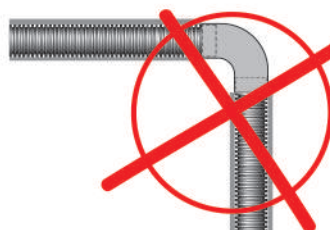
Reduced pressure drop as the internal section remains unchanged even in the points of curvature

Single wall in netted closed cell of expanded polyethylene foam (R-value 0,66 m²K/W)

Lightness and self-supporting thanks to the reinforced structure with a spiral steel wire that also allows the internal section to remain unchanged at the points of curvature

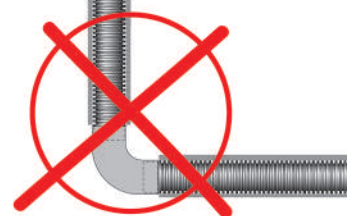


no risk of crushing in curves with tight radius



no connection systems or special pieces are required in the curves

corrugated ducts





F10

Flexible hose made of additivated polyolefin resins film (wall thickness 100 micron) and steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE	OPACITY AND TOXICITY OF FUMES
Black	10 m standard	from 80 to 406 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 20 m/sec	max 200 mmH ₂ O	class F0 (NFF16-101 - Tab. 4)

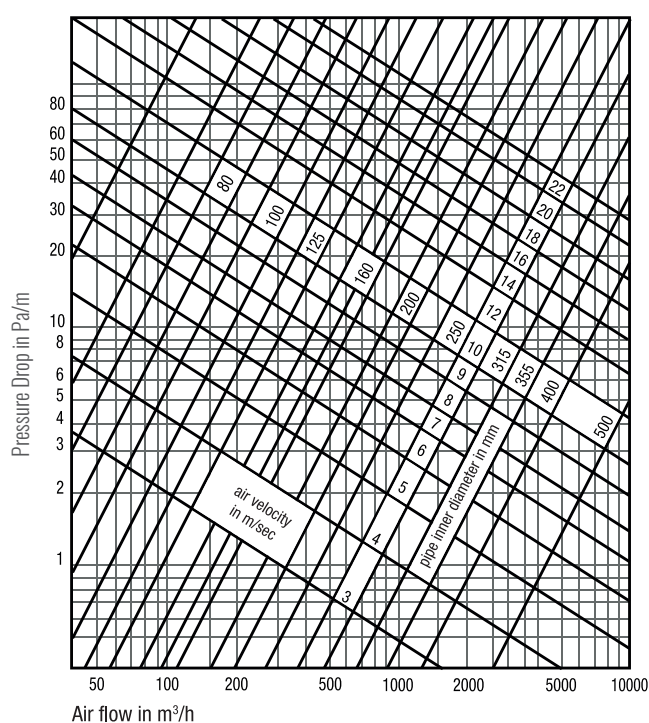
PRODUCTION DIAMETERS

80	102	127	152	160	165*	180	203	254	305	318	356	406
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*Diameters available on request
Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RE1205C20D100005

FR

Class M1 (NF P 92-507:2004)

EU

Class B-s1, d0 (EN 13501-1:2009)

GREEN BUILDING

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Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
Compact Version*	Building	Air Conditioning	CMV	Non-magnetic*	Temporary air conditioning			

*on request



F10 Therm

Flexible hose made of additivated polyolefin resins film (wall thickness 100 micron) and steel wire helix. Thermo-insulating covering in polyester fibre (th. 25mm/16kg/m³). Outer anti-steam protection in additivated polyolefin resin.

Insulation: 25mm / 16kg/m³ - standard
50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,58m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Black	10 m standard	from 80 to 406 mm	-20°C / +90°C (peak +110°C)	0,8 - 1,5 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

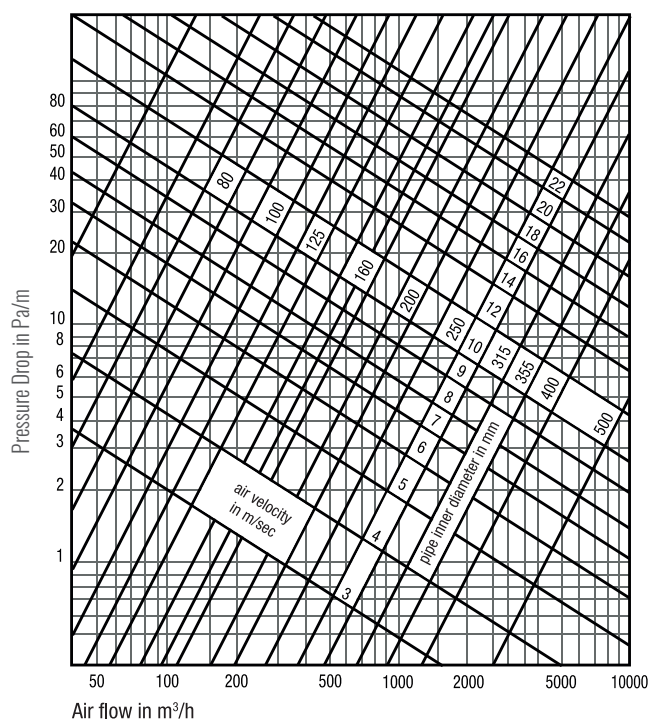
80	102	127	152	160	165*	180	203	254	305	318	356	406
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RE1205C20D100006

EU

Inner tube and vapor barrier:
class B-s1, d0 (EN 13501-1:2009)

Thermal insulation:
class B-s2, d0

FR

Inner tube and vapor barrier:
Class M1 NF P 92-507:2004

Thermal insulation:
Class M1 NF P 92-507:2004

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
							*on request	
Compact Version*	Building	Air Conditioning	CMV	Non-magnetic*	Prolonged anti condensation	Temporary air conditioning		



F6

Flexible hose made of additivated polyolefin resins film (wall thickness 60 micron) and steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Grey	10 m standard	from 80 to 406 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 20 m/sec	max 200 mmH ₂ O

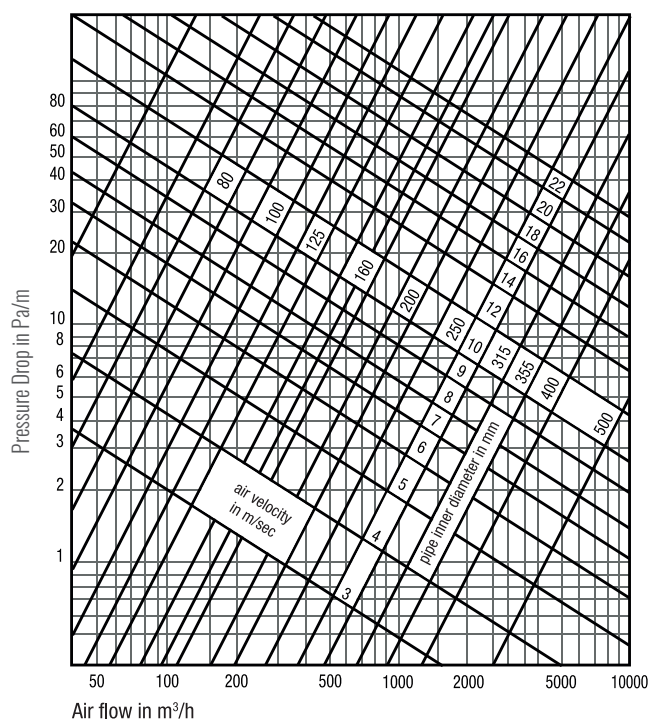
PRODUCTION DIAMETERS

80	102	127	152	160	165*	180	203	254	305	318	356	406
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*Diameters available on request
Diameters other than those indicated are available by prior feasibility check

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	6,5	1151	10,5
254	1445	4,7	1843	7,5
318	2278	3,7	3105	6
356	3058	3	3850	5,2
406	3845	2,7	4590	4,4

CERTIFICATION FOR FIRE REACTION



IT	Class 1 (D.M. 26/06/84) Omologation nr.: RO3827C20D100001
FR	M1 (NF P 92 507:2004)
EU	class B-s1, d0 (EN 13501-1:2009)

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM
Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
						*on request		
Compact Version*	Building	Air Conditioning	CMV	Non-magnetic*	Temporary air conditioning			



F6 Therm

Flexible hose made of additivated polyolefin resins film (wall thickness 60 micron) and steel wire helix.

Thermo-insulating covering in polyester fibre (th. 17 mm/11 kg/m³).

Outer anti-steam protection in additivated polyolefin resin.

Insulation: 17mm / 11kg/m³ - standard
25mm / 16kg/m³ - on request
50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,35m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE	THERMAL TRASMITTANCE
Grey	10 m standard	from 80 to 406 mm	-20°C / +90°C (peak +110°C)	0,8 - 1,5 x Ø	max 20 m/sec	max 200 mmH ₂ O	λ : 0,064 W/mK

PRODUCTION DIAMETERS

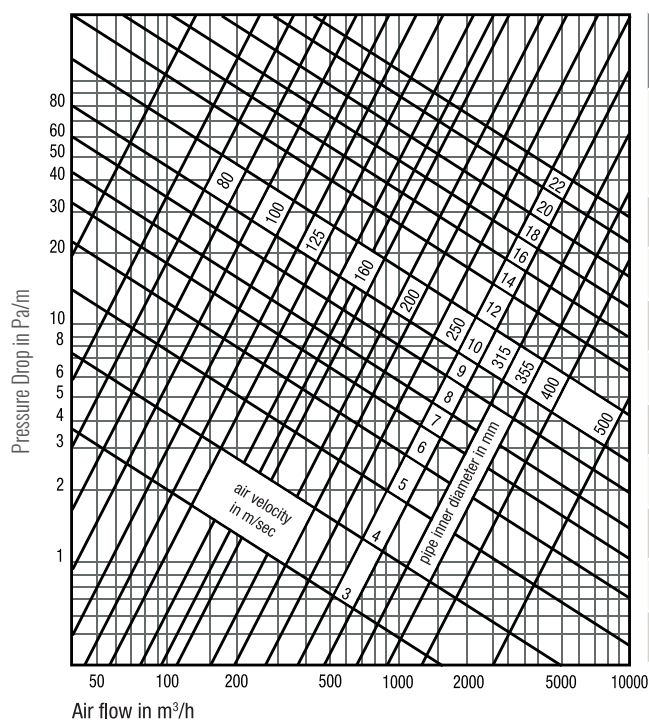
80	102	127	152	160	165*	180	203	254	305	318	356	406
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	6,5	1151	10,5
254	1445	4,7	1843	7,5
318	2278	3,7	3105	6
356	3058	3	3850	5,2
406	3845	2,7	4590	4,4

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RO3827C20D100002

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM®

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
						*on request		
Compact Version*	Building	Air Conditioning	CMV	Non-magnetic*	Temporary air conditioning			



AC

Flexible hose made of polyester fabric coated with additivated polyolefin resins and steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Black. On request Green or Grey.	10 m standard	from 80 to 610 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

80	89*	102	110*	121	127	133*	140*	152	160	180	203
228*	254	279*	305	318	356	406	457*	508	559*	610	

*Diameters available on request

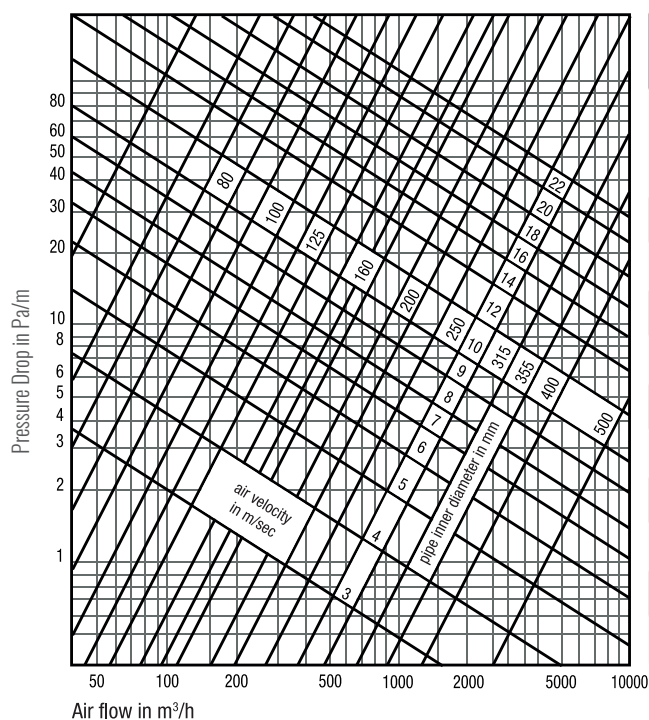
Diameters other than those indicated are available by prior feasibility check

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)

PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.



DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION

IT	Class 1 (D.M. 26/06/84) Omologation nr.: RE1205C20CD100003
FR	Class M1 (NF P 92-507:2004)

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

								HF
Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
Compact Version*	Industry	Building	Air Conditioning	CMV	Non-magnetic*	CMV transp. Means	CMV Mech. Means	Recreational Boats

*on request



AC Therm

Flexible hose made of polyester fabric coated with additivated polyolefin resins and steel wire helix.
Thermo-insulating covering in polyester fibre (th. 25mm/16kg/m³).
Outer anti-steam protection in additivated polyolefin resin.

Insulation: 25mm / 16kg/m³ - standard
50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,58m²K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Black. On request Green	10 m standard	from 80 to 610 mm	-20°C / +90°C (peak +110°C)	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

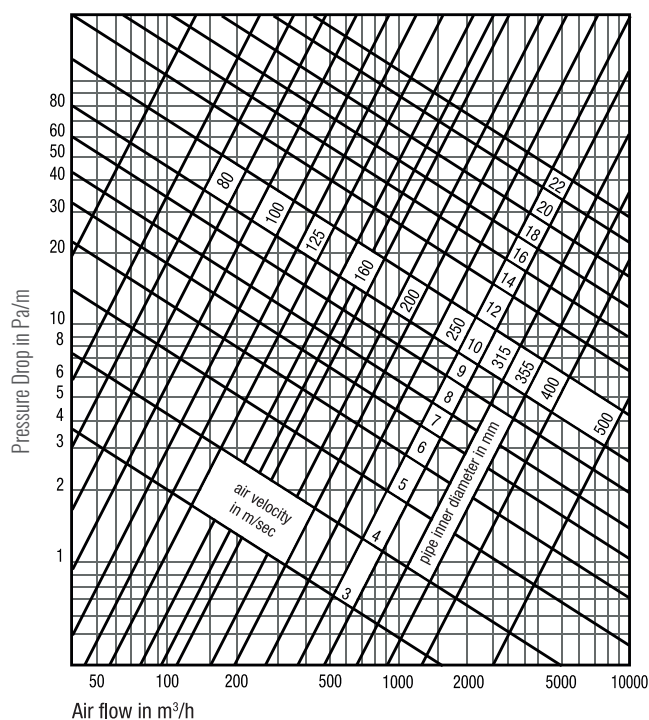
80	89*	102	110*	121	127	133*	140*	152	160	180	203
228*	254	279*	305	318	356	406	457*	508	559*	610	

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m ³ /h]	[Pa/m]	[m ³ /h]	[Pa/m]
80	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION

IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RE1205C20CD100004

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	EasyPack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
Compact Version*	Industry	Building	Air Conditioning	CMV	Non-magnetic*	CMV transp. Means	CMV Mech. Means	Recreational Boats

*on request



AL-P

Flexible hose made of AL (aluminium) wall coupled with polyolefin film reinforced with polyester net to ensure a greater mechanical resistance to the aluminium. Inner steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
External Black/ Internal aluminium	10 m standard	from 82 to 508 mm	-30°C / +140°C	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

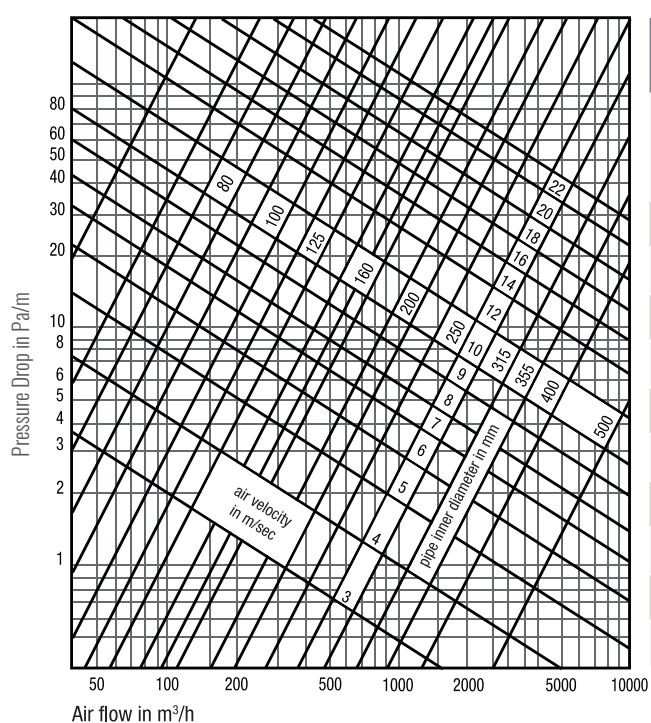
82	102	127	152	160	180	203	228*	254	305	318	356	406	457*	508*
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]				
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	EasyPack	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free	Compact Version*
Industry	Building	Air Conditioning	CMV	Non-magnetic*	CMV transp. Means	CMV Mech. Means	Recreational Boats	

*on request



AL-F10

Flexible hose made of AL (aluminium) wall coupled with polyolefin film to ensure a greater mechanical resistance to the aluminium.
Inner steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
External Black/ Internal aluminium	10 m standard	from 82 to 508 mm	-30°C / +140°C	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

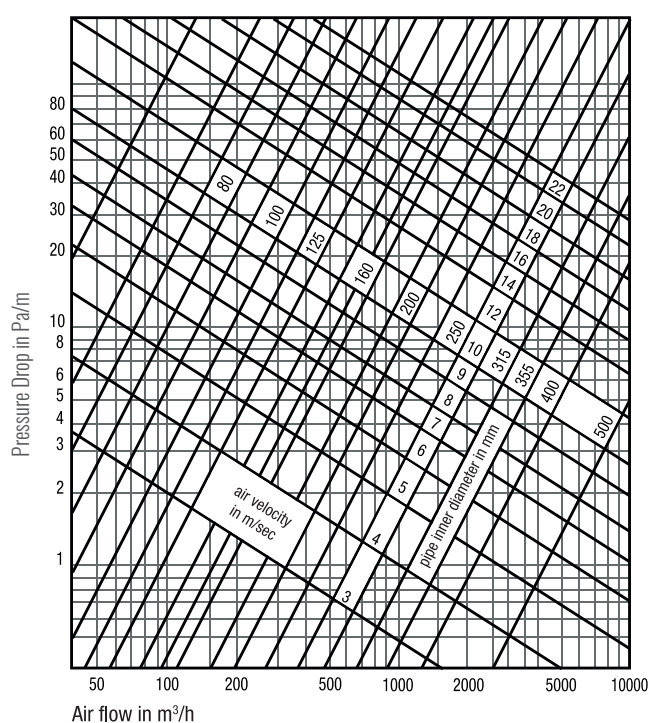
82	102	127	152	160	180	203	228*	254	305	318	356	406	457*	508*
----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----	-----	-----	------	------

*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE	PRESSURE DROP	FLOW RATE	PRESSURE DROP
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

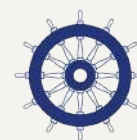
Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Tear Resistant	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free	Compact Version*
Industry	Building	Air Conditioning	CMV	Non-magnetic*	CMV transp. Means	CMV Mech. Means	Recreational Boats	

*on request



AL

Flexible hose made of AL/PET/AL (aluminium/polyester/aluminium) wall and steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Aluminium	10 m standard	from 82 to 630 mm	-30°C / +140°C (peak 180°C)	0,6 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

82	102	127	152	160	165*	180	203	228*	254	305	318	356	406	457*	508	630*
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*Diameters available on request

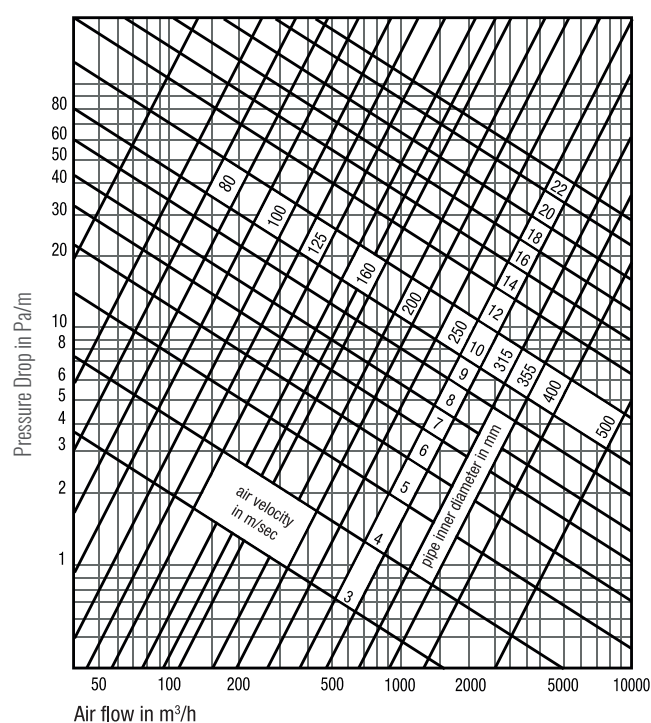
Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)

PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.



DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]				
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RE1205C20D100007

EU

B-s1, d0
(EN 13823:2010)



MED/3.18f
(2014/90/UE)
f) combustible ducts
membrane

FR

Class M0 (NF P 92-507:2004)

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

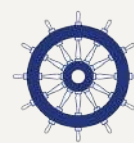
Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	EasyPack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	Compact Version*	Building	Air Conditioning
CMV	Non-magnetic*	Extractor Hoods						

*on request



AL Therm



Flexible hose made of AL/PET/AL (aluminium/polyester/aluminium) wall and steel wire helix.

Thermo-insulating covering in polyester fibre (th. 25mm/16kg/m³).

Outer anti-steam protection in aluminized polyolefin film (flame retardant).

The sturdiness of the heat-bonded polyester fibre prevents dispersion of microfibrils during air flow.

Insulation: 25mm / 16kg/m³ - standard

50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,58m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Aluminium	10 m standard	from 82 to 630 mm	-30°C / +140°C (peak 180°C)	0,8 - 1,5 x Ø	max 32 m/sec	max 250 mmH ₂ O

PRODUCTION DIAMETERS

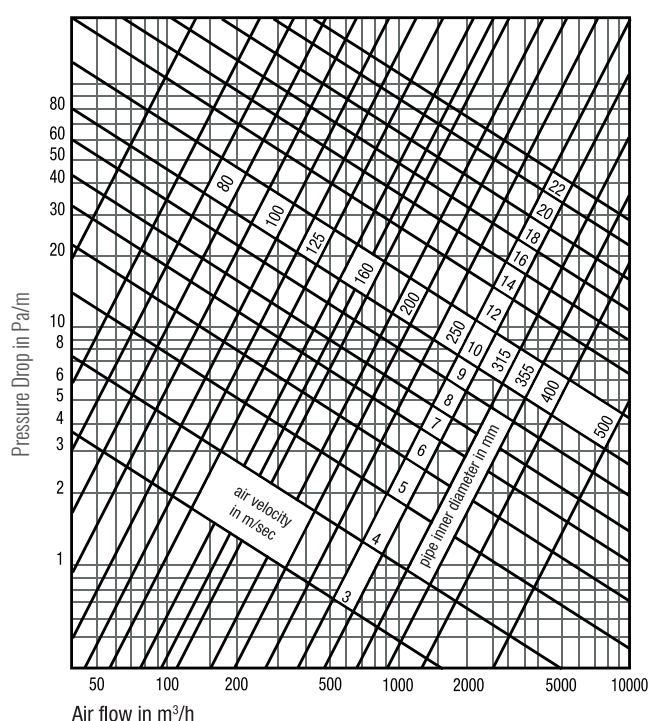
82	102	127	152	160	165*	180	203	228*	254	305	318	356	406	457*	508	630*
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION

IT	Class 1 (D.M. 26/06/84), Omologation nr.: RE1205C20D100008		
EU	Inner tube: Class B-s1, d0 (EN 13823:2010) Thermal insulation: Class B-s2, d0 (UNI EN 13501-1:2009)	Vapor barrier: Class B-s1, d0 (EN 13501:2009)	 MED/3.18f - (2014/90/UE) Surface materials and floor coverings with low flame-spread characteristics: f) Combustible ducts membrane
FR	class M1 (NF P 92-507:2004)		

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

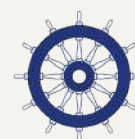
Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

								
Residential	Flexibility	EasyPack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	Compact Version*	Building	Air Conditioning
								
CMV	Non-magnetic*	Extractor Hoods						

*on request



AL-Phon

Flexible hose made of AL/PET/AL (aluminium/polyester/aluminium) micro-perforated walls to reduce air flow noise and steel wire helix. Thermo-insulating covering in polyester fibre (th. 25mm/16kg/m³). Outer anti-steam protection in aluminized polyolefin film (flame retardant).

The sturdiness of the heat-bonded polyester fibre prevents dispersion of microfibrils during air flow and maintains its integrity over the years.

Insulation: 25mm / 16kg/m³ - standard

50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,58m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Aluminium	10 m standard	from 82 to 630 mm	-30°C / +140°C (peak 180°C)	0,8 - 1,5 x Ø	max 32 m/sec	max 250 mmH ₂ O

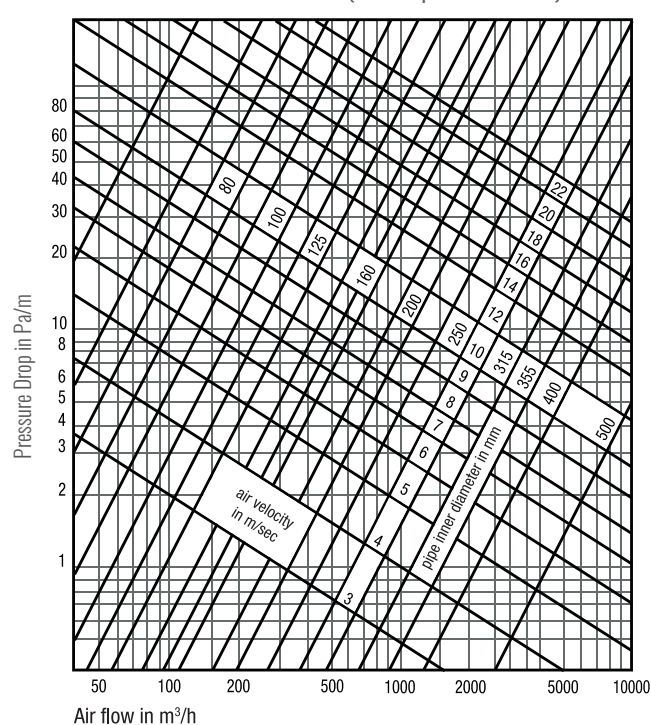
PRODUCTION DIAMETERS

82	102	127	152	160	165*	180	203	228*	254	305	318	356	406	457*	508	630*
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*Diameters available on request

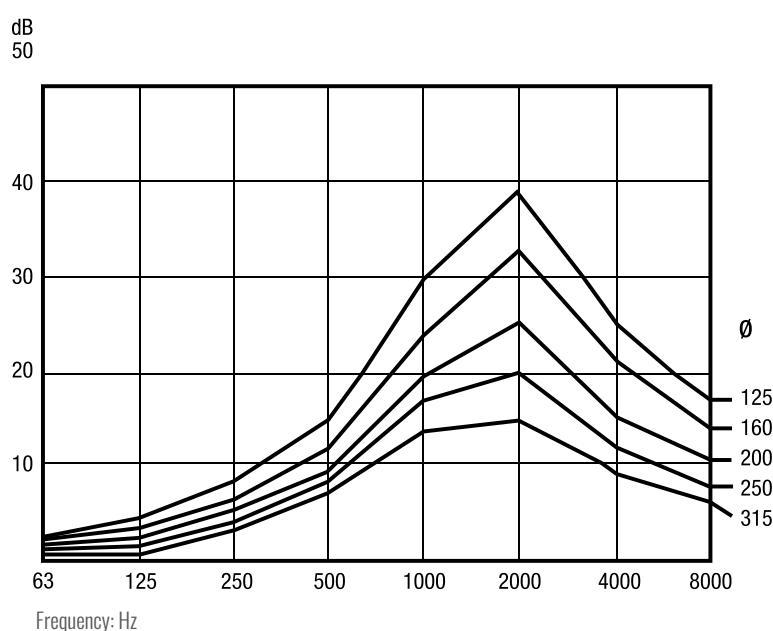
Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM (Air temperature 20°C)



AL-PHON SOUND REDUCTION CURVE

Hose length: 1m



CERTIFICATION FOR FIRE REACTION

IT	Class 1 (D.M. 26/06/84), Omologation nr.: RE1205C20D100010			
EU	Inner tube: Class B-s1, d0 (EN 13823:2010) Thermal insulation: Class B-s2, d0 (UNI EN 13501-1:2009)	Vapor barrier: Class B-s1, d0 (EN 13501:2009)	 0497	MED/3.18f - (2014/90/UE) Surface materials and floor coverings with low flame-spread characteristics: f) Combustible ducts membrane
FR	class M1 (NF P 92-507:2004)			

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
SOUND, MATERIALS COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, HEA, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

								
Residential	Flexibility	EasyPack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	Compact Version*	Building	Air Conditioning
								
CMV	Non-magnetic*	Extractor Hoods						

*on request

PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m ³ /h]	PRESSURE DROP [Pa/m]	FLOW RATE [m ³ /h]	PRESSURE DROP [Pa/m]
[mm]				
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	7	1151	11
254	1445	5	1843	8
318	2278	4	3105	6
356	3058	3	3850	5
406	3845	3	4590	4
508	5111	2	8223	3



AL1

Flexible hose made of AL/PET (aluminium/polyester) wall and steel wire helix.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Aluminium	10 m standard	from 82 to 630 mm	-30°C / +140°C (peak 180°C)	0,6 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

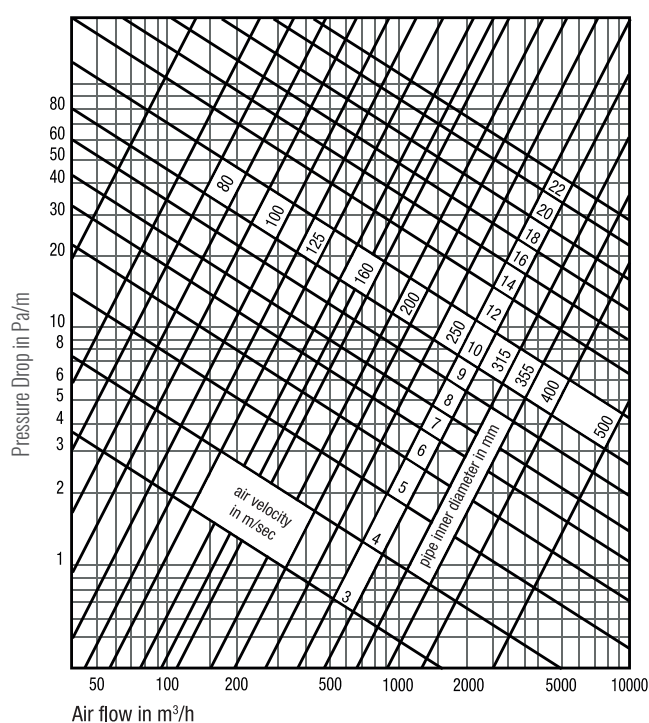
82	102	127	152	160	165*	180	203	228*	254	305	318	356	406	457*	508	630*
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]	[m³/h]	[Pa/m]	[m³/h]	[Pa/m]
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	6,5	1151	10,5
254	1445	4,7	1843	7,5
318	2278	3,7	3105	6
356	3058	3	3850	5,2
406	3845	2,7	4590	4,4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RO3827C20D100004

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	Compact Version*	Building	Air Conditioning
CMV	Non-magnetic*	Extractor Hoods						

*on request



AL1-Therm

Flexible hose made of AL/PET (aluminium/polyester) wall and steel wire helix.
Thermo-insulating covering in polyester fibre (th. 17mm/11kg/m³).
Outer protection in aluminized polyolefin film (flame retardant).
The sturdiness of the heat-bonded polyester fibre prevents dispersion of microfibrils during air flow.

Insulation: 17mm / 11kg/m³ - standard
25mm / 16kg/m³ - on request
50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,35m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Aluminium	10 m standard	from 82 to 630 mm	-30°C / +140°C (peak 180°C)	0,8 - 1,5 x Ø	max 20 m/sec	max 200 mmH ₂ O

PRODUCTION DIAMETERS

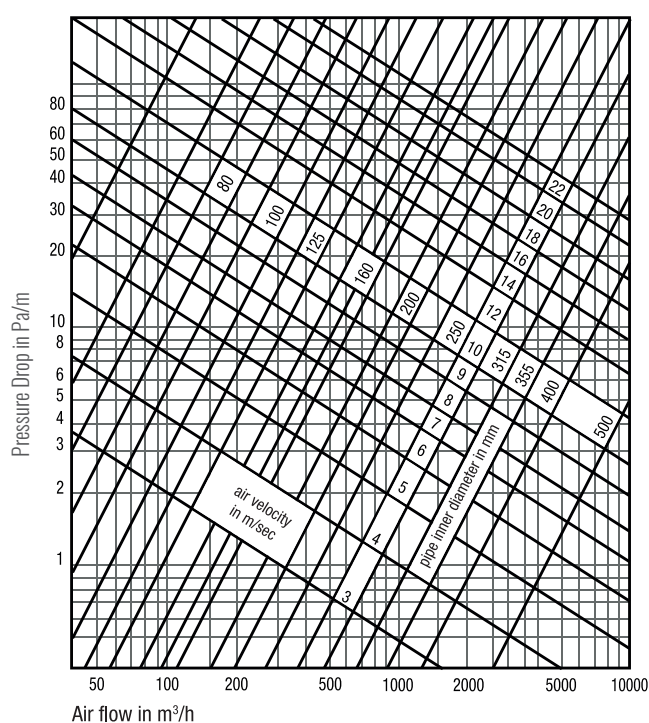
82	102	127	152	160	165*	180	203	228*	254	305	318	356	406	457*	508	630*
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*Diameters available on request

Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM

(Air temperature 20°C)



PRESSURE DROPS TABLE WITH CALCULATION EXAMPLES

To calculate the flow rates and pressure drops of other diameters, use the beside diagram.

DIAMETER	AIR SPEED 8m/s		AIR SPEED 10m/s	
	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]	FLOW RATE [m³/h]	PRESSURE DROP [Pa/m]
[mm]				
82	152	19	190	31
102	250	15	333	24
127	383	12	368	18
160	575	8	773	14
203	900	6,5	1151	10,5
254	1445	4,7	1843	7,5
318	2278	3,7	3105	6
356	3058	3	3850	5,2
406	3845	2,7	4590	4,4
508	5111	2	8223	3

CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84),
Omologation nr.: RO3827C20D100003

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	Compact Version*	Building	Air Conditioning
CMV	Non-magnetic*	Extractor Hoods						

*on request



AL1-Phon

Flexible hose made of AL/PET (aluminium/polyester) micro-perforated walls to reduce air flow noise and steel wire helix.

Thermo-insulating covering in polyester fibre (th. 17mm/11kg/m³).

Outer protection in aluminized polyolefin film (flame retardant).

The sturdiness of the heat-bonded polyester fibre prevents dispersion of microfibrils during air flow and maintains its integrity over the years.

Insulating: 17mm / 11kg/m³ - standard

25mm / 16kg/m³ - on request

50mm / 16kg/m³ - on request

Thermal resistivity at 20°C **R = 0,35m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	AIR SPEED	PRESSURE
Aluminium	10 m standard	from 82 to 630 mm	-30°C / +140°C (peak 180°C)	0,8 - 1,5 x Ø	max 20 m/sec	max 200 mmH ₂ O

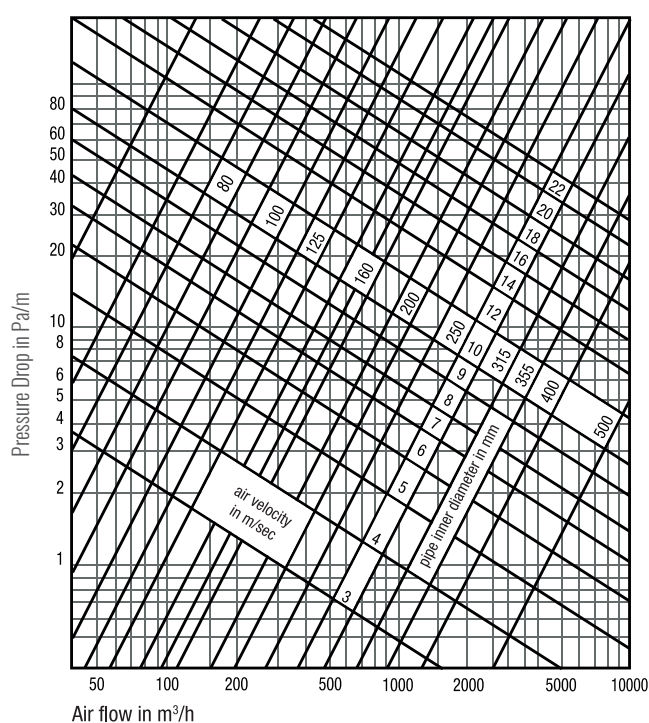
PRODUCTION DIAMETERS

82	102	127	152	160	165*	180	203	228*	254	305	318	356	406	457*	508	630*
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*Diameters available on request

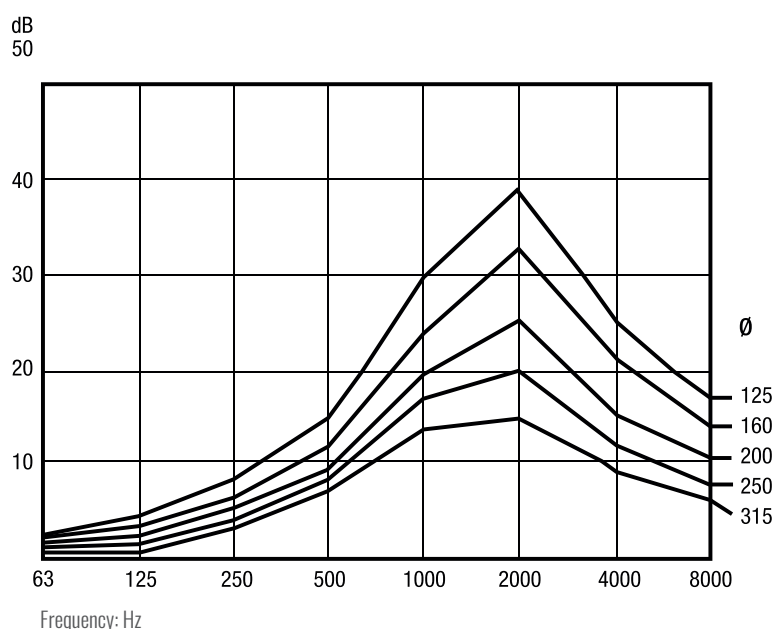
Diameters other than those indicated are available by prior feasibility check.

PRESSURE DROPS DIAGRAM (Air temperature 20°C)



AL-PHON SOUND REDUCTION CURVE

Hose length: 1m



CERTIFICATION FOR FIRE REACTION



IT

Class 1 (D.M. 26/06/84)
Omologation nr.: RO3827C20D100005

GREEN BUILDING

Thanks also to the support of GreenMap, products manufactured by Tecnica srl contribute to obtain the credits of the major international rating systems for sustainable buildings:



LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
SOUND, MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, HEA, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

Residential	Flexibility	EasyPack	Self-extinguishing	Tear Resistant	Calibrated Diameters*	Compact Version*	Building	Air Conditioning
CMV	Non-magnetic*	Extractor Hoods						

*on request



Therm Sleeve

Flexible insulating sleeve produced with a light TNT inner coating, thermo-insulating layer in polyester microfibre (th. 25mm/16kg/m³).
Outer protection in aluminized polyolefin film.
The sturdiness of the heat-bonded polyester fibre prevents dispersion of microfibres during air flow.

Thermal resistivity at 20°C **R = 0,58m² K/W (UNI EN 12664:2002)**

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	WORKING TEMPERATURE	PRODUCTION DIAMETERS	CURVATURE RADIUS
Aluminium	10m standard	-30° + 90°C (peak +110°C)	from 82 to 508 mm	0,8 - 1,5 x Ø

PRODUCTION DIAMETERS

82	102	127	152	160	180	203	254	305	318	356	406	457	508
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Diameters other than those indicated are available by prior feasibility check.

GREEN BUILDING

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LEED

Contributes to credits:
IP, EA, MR



WELL

Contributes to credits:
MATERIALS, COMMUNITY

BREEAM

BREEAM

Contributes to credits:
MAN, ENE, WST

For further details regarding the specific contributions to the credits indicated, contact Tecnica srl

APPLICATIONS

								HF
Residential	Flexibility	Easy Pack	Self-extinguishing	Tear Resistance	Calibrated Diameters*	REACH Certifie	RoHS Certifie	Halogen Free
Compact version*	Building	Air Conditioning	CMV	Non magnetic*	Temporary air conditioning			

*on request



ALU

Flexible hose made with spiral seamed aluminium lamina.

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	CURVATURE RADIUS	RIBBING DEPTH	FIRE REACTION
Aluminium	3 m standard (packed compressed 0.80m)	from 60 to 300 mm	up to 300°C	1,2 x Ø	0.05mm	Ininflammable - Class 0 (being totally mineral)

PRODUCTION DIAMETERS

60	70	80	90	100	110	120	125	130	140	150	160	180	200	220	250	280	300
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Diameters other than those indicated are available by prior feasibility check.

AVAILABLE MODELS

ALU 14: Thickness 0.12mm	ALU MINI SINGLE WALL: Thickness 0.12mm	ALU MINI DOUBLE WALL: Thickness 0.12+0.12mm
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APPLICATIONS

Residential	Working temperature	Chemical resistant	Industry	Building	Extractor Hoods	High Temp. Suction



Flexinox

Flexible hose made with spiral seamed AISI 316 + stainless-steel lamina

TECHNICAL SPECIFICATIONS AND USAGE LIMIT

COLOR	LENGTH	PRODUCTION DIAMETERS	WORKING TEMPERATURE	THICKNESS	FIRE REACTION
Natural Inox	from d. 16 to d. 75 - coils of 25m from d. 80 a d. 500 - stretched bars of 3m	From 16 to 500 mm	up to 400°C (peak 700°C)	0,12mm	Non-flammable Class 0 (as totally mineral)

COILS OF 25 M

16	18	22	24	26	28	30	32	34	36	38	40	42	44	45	46	48	50	60	70	75
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STRETCHED BARS 3 M

80	85	90	100	110	115	120	125	130	135	140	150	155	160	170	180	190	200	220	230	250
280	300	350	400	450	500															

Diameters other than those indicated are available by prior feasibility check.

APPLICATIONS

Residential	Working temperature	Chemical resistant	Industry	Building	Extractor Hoods	Hig Temp. Suction

PAYMENT OF INVOICES

All invoices must be paid to:

TECNICA Srl - VIA DEGLI INTARSIA TORI ROLES I, 1-42047 ROLO (RE) - ITALY only.

In the event of delayed payments, TECNICA srl shall be entitled to charge interest at the business rate (prime rate plus three percentage points) for each month or, in proportion, for a fraction of the month of delay.

WARRANTIES AND LIABILITIES

TECNICA srl warrants that the products have been made in compliance with the technical specifications indicated on the technical sheets. TECNICA srl disclaims all liability for any damage suffered by the customer's buyers as a result of the inadequate fulfilment of the obligations towards them, with special reference to consumer information entitlements.

CLAIMS

Any claims due to faulty goods must be notified in writing to TECNICA srl - VIA DEGLI INTARSIA TORI ROLES I, 1 - 42047 ROLO (RE) - ITALY within 8 days from receipt. Only returned goods authorized by TECNICA srl will be accepted and these must be in their original, integral and complete packaging.

MISCELLANEOUS

These general sales conditions shall be deemed known and accepted by effect of the sending of a purchase order by the customer to TECNICA srl and may be changed by Tecnica srl by means of simple written notice.

HOW TO PLACE AN ORDER

Tecnica srl has certified quality. Consequently, all orders must be placed in written form and sent by fax or email. Phone orders must be followed by a written document within the following 2 days.

For each order, Tecnica srl will send an order confirmation showing model and/or technical specifications, quantity and prices quoted for the ordered products.

Whenever, within two days after the sending of such document, this is not returned to us corrected or amended, it shall be deemed tacitly approved and supply shall be regularly made.

Subsequent amendments shall produce a further new order with due charge of the previous one.

GENERAL SUPPLY TERMS

The material is packed in standard wrapping (single or multi-piece). Packs normally contain minimum amount of material that can be supplied. On request, we can supply even lower quantities at differentiated prices; in this case a packaging surcharge may apply.

Tecnica srl, on request, can design and supply its product range made to specific demands.

Goods travel at the customer's risk, unless otherwise agreed.

Tecnica srl shall execute orders which have been placed and accepted, just as quickly as possible, and will notify the customer in case of any delays. Under no circumstance shall the customer be entitled to cancel an order already placed and accepted without the prior agreement of Tecnica srl. By placing the order with Tecnica srl, the customer fully accepts the conditions, the notes and the warnings indicated in this catalogue and also contained in the other documents produced by Tecnica srl (offers, order confirmations, transport documents, etc.).

A number of precautions must be taken as regards the products storage to prevent any possible deterioration of the material. Stored products must be protected against dust and direct sunlight, in dry premises, and the articles must be kept in their original packaging and only opened when they are to be used. Too much damp can damage the plastic materials used and corrode the metal parts. The articles must be stored flat and not crushed by weights. They must never be hung on hooks, wires or nails.

DELIVERY TIMES

For products in stock, prompt delivery as long as stocks last.

For products not in stock, approximate delivery times are 15/20 days from order confirmation date.

The delivery date indicated on the order confirmation documents shall be deemed the Tecnica ex-works delivery date.

PRODUCT DELIVERY

Material will only be dispatched via carrier indicated by TECNICA srl, except in the case of an express request of the customer and with delivery carriage forward.

For goods transport, if required with free-destination with charge, the customer will be charged a contribution with amount indicated on invoice. Any notification of accidents, loss or faults affecting the goods shall be sent by fax to TECNICA srl within 24 hours from receipt of goods.

In the event of such notification not being made within the aforementioned term TECNICA srl disclaims all liability.

NOTE

TECNICATM

Efficient Indoor Air Project



TECNICA srl
is a company certified
UNI EN 9001:2015
issued by TÜV ITALIA.
Certificate number 50100 15241

TECNICATM

Efficient Indoor Air Project

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