AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

Via Como , 124
23883 Brivio (LC)
Tel. 039 5320749
Fax 039 9273300

commerciale@amusrl.com
www.amusrl.com

Amuflex

Flexible cable sheaths

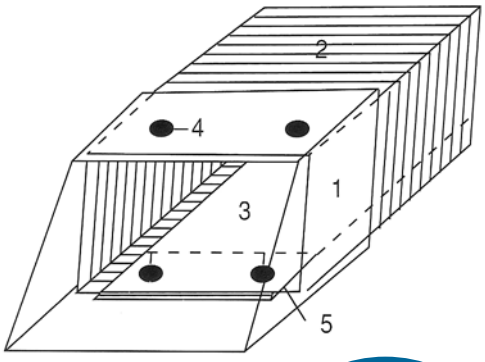
AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

Amuflex

Flexible sheath Amuflex allows conducting electric, hydraulic or pneumatic tubes to moving terminals.
The function of the steel leaf for springs is to provide the tube's spires of a pre-charge of self-supporting. Furthermore it assures the tubes' integrity.
The connection between spiral tube, steel leaf for springs and the flange is mechanically realized with rivets. Plus, the two steel leaf ends are folded over the external side of the tube and then engaged into the flanges.

Unlike the system with external leaf attached, this system doesn't undergo the action of fluids and powders that first or then causes, combined with the spire's solicitation, the leaf's detachment.
In order to define Amuflex Sheath's overall dimensions it is necessary to determine five conditions:

- **section (NG)**
- **radius of curvature (R)**
- **total length**
- **flange's model**
- **flange's orientation**



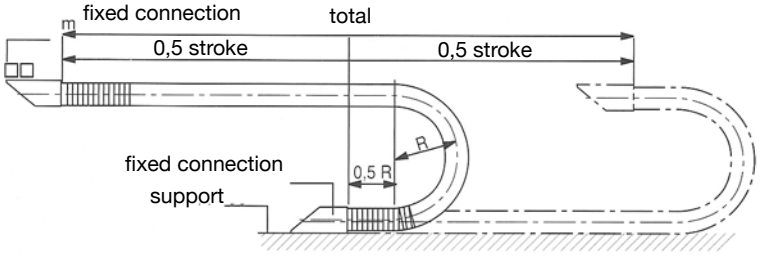
1. flange
2. spiral pipe
3. steel foil by spring
4. rivets
5. bioadhesive tissue

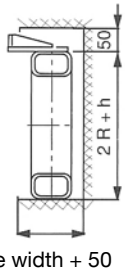
If required, it is possible to provide cable cases with rubber gasket between the spirals (production model SV310S). Sheath's size is defined according to the cables' number and diameter.
Usually inside every sheath is placed only one cables' layer. In case of a limited number of operations it is possible to place the cables in more than one layer. Radius of curvature is determined as each case requires, but it would have to be more or less 10 times the electric cable or flexible tube to transport.

That's why it is necessary to analyse data from the cables or tube's producer.
The higher is the strokes' number, the larger must be the radius of curvature.
The radius R recommended in the order is the medium radius of curvature of the tube.
The following is the formula to define AMUFLEX cable case sheath's total length:

(0,5 x path) + (3,14 x R) + (2 x 0,5 x R)

Sheath's development length fits the sheath's length in its working position.
The working rotation radius of the spires, while processing, corresponds to the internal radius. So the sheath, in a straight position, is shorter for a multiple of Z, as explained in the table for the determination of length quota A.



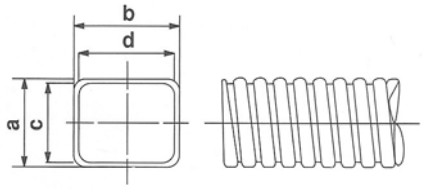


tube width + 50

AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

Amuflex

Model SV 300S



Manufacture: coiled metal tube hooked profile without seal
Material: steel quality St 3 , unbound, from cold rolled strip; DIN 1624 material nr. 1,0330, zinc-coated
Quality: flexible, tensile strength and compression
Usage: conduit for electrical wiring and conduits for fluids

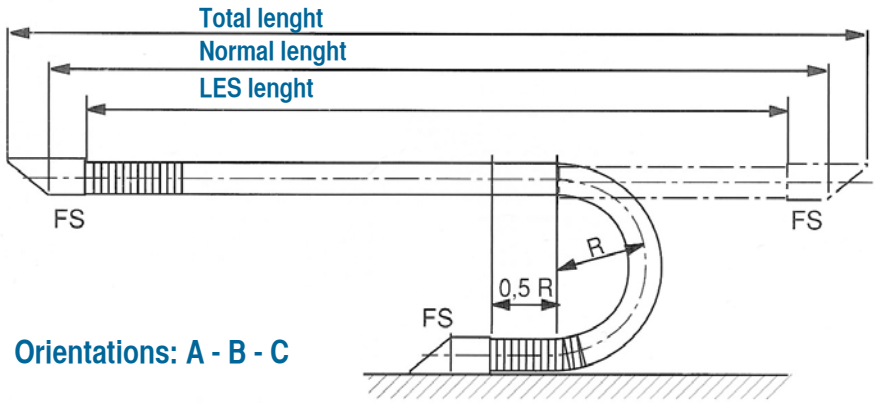
Dimensions (mm) and features

Mod.	outside dimensions		inside dimensions		standard rays		max cantilever length	finished pipe weight +/- 10%
NG	a x b	toler. mm	c x d	toler. mm	rays	toler. mm	mt	Kg/mt
15	30 x 50	+ 1	26,8 x 47,0	- 1	70	- 10	1,5 - 2,0	2,0
25	50 x 50	+ 1	46,8 x 46,8	- 1	120	- 10	1,5 - 2,0	2,5
38	45 x 85	+ 1	40,8 x 81,0	- 1	100	- 10	2	3,0
42	65 x 65	+ 1	60,8 x 60,8	- 1	130	- 10	2	2,14
51	60 x 85	+ 1	55,8 x 81,0	- 1	130	- 10	2	3,5
69	60 x 115	+ 1	54,8 x 110,2	- 1	130	- 20	2	4,8
92	80 x 115	+ 1	74,6 x 110,0	- 1	170	- 20	2,0 - 2,5	5,3
126	90 x 140	+ 1	84,6 x 135,0	- 1	180	- 20	2,0 - 2,5	6,6
140	80 x 175	+ 1	74,4 x 169,8	- 1	170	- 20	2,0 - 2,5	7,2
154	110 x 140	+ 1	104,0 x 134,4	- 1	250	- 20	2,0 - 2,5	6,12
193	110 x 175	+ 1	104,2 x 169,6	- 1	250	- 20	3	8,2
242	110 x 220	± 1,5	104,4 x 214,4	- 1	250	- 20	3	7,82

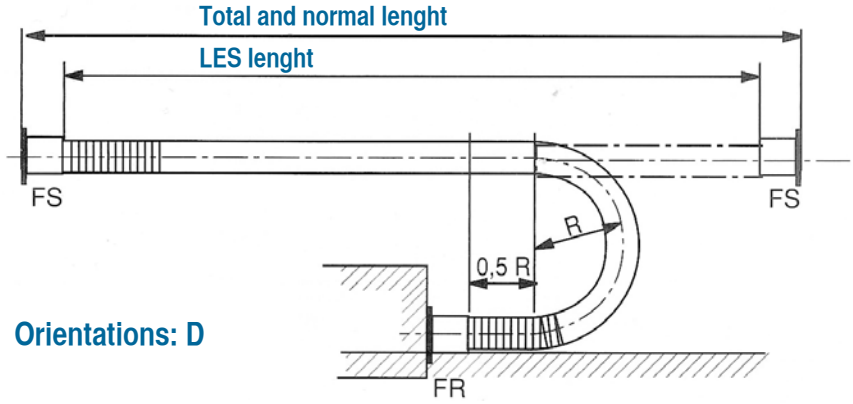
AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

Amuflex

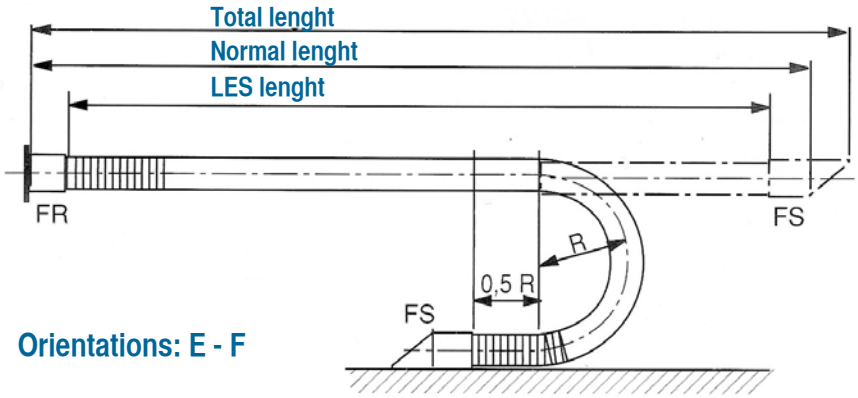
Cable carrier lenghts



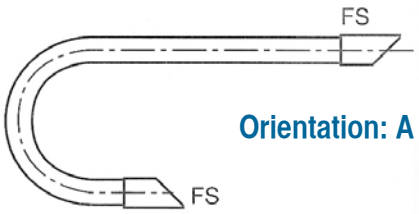
Orientations: A - B - C



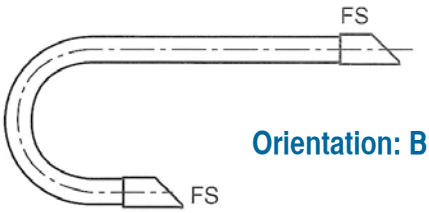
Orientations: D



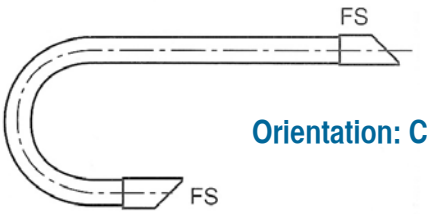
Orientations: E - F



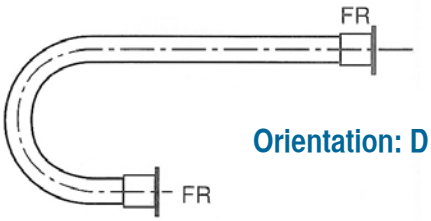
Orientation: A



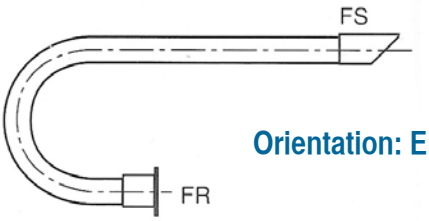
Orientation: B



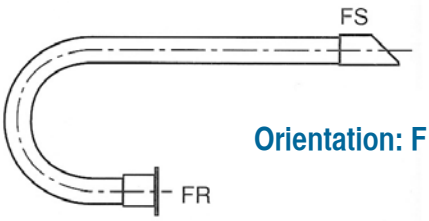
Orientation: C



Orientation: D



Orientation: E



Orientation: F

AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

Amuflex

Amuflex protections are provided for a stroke of maximum 8 metres.
During every session of service no more than 2 strokes per minute are recommended.
The maximum length we can provide for a protection is 5 metres.
For embossed lengths over 2,5 metres it is necessary to set the right number of rollers.

Order example

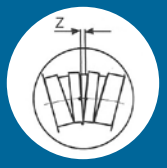
Requested features:
Total stroke 4 mt.
total radius of curvature 150 mm
3 cables ∅ 32

Corresponding model:

AMUFLEX NG 69 - R 150 - LES 2.621 - A

Model	*Rays*	*Lenght*	*Orientation and flanges model*

Value A determination by result of Z x n

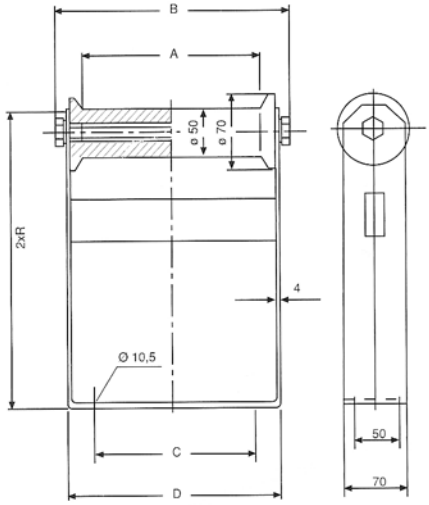


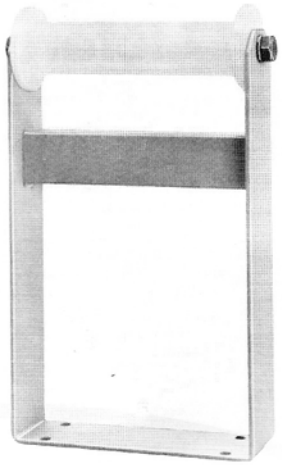
The value of A is determined by multiplying the value of Z for the turns contained in the curve development at 180 °.
Beside table shows already calculated models values.

Mod NG	A mm
15	45
25	75
38	65
51	90
69	90
92	120
126	175
140	120
193	170

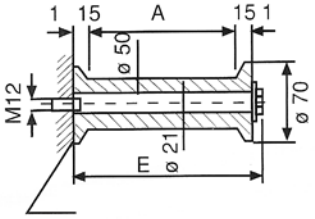
Roller support with frame

Order example
PR15 x 400 / ∅ 50



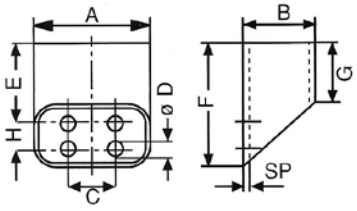


Order example
PR15 x ∅ 50



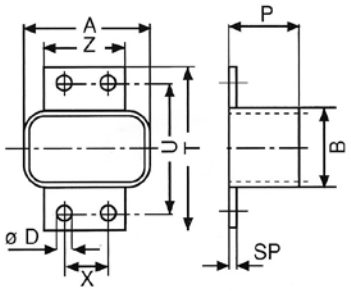
PR	A	B	C	D	E	NG
6	60	126	40	100	103	25
10	100	166	80	140	143	51
15	150	216	130	190	193	92-126
20	200	266	180	240	243	140-193

Standard flanges



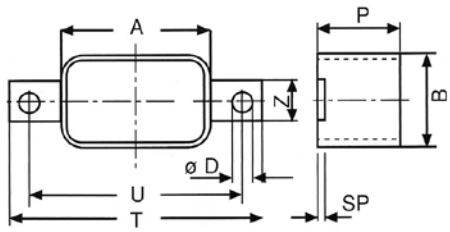
Dimensions (mm) and features									
TIPO	Standard								
NG	A	B	C	ø D	E	F	G	H	Sp.
15	54	34	20	7	45,0	60	30	-	2,0
25	54	54	20	7	45,0	60	30	-	2,0
38	90	50	50	7	67,5	90	45	-	2,0
42	70	70	50	7	67,5	90	45	-	2,0
51	90	65	50	7	67,5	90	45	-	2,0
69	120	65	80	9	70,0	120	60	40	2,0
92	120	85	80	9	70,0	120	60	40	2,0
126	145	95	105	9	70,0	120	60	40	2,0
140	180	85	140	9	97,5	165	80	50	2,0
154	145	115	140	9	97,5	165	80	50	2,0
193	180	115	140	9	97,5	165	80	50	2,0
242	225	115	150	9	97,5	165	80	50	2,0

Front flanges - Model I



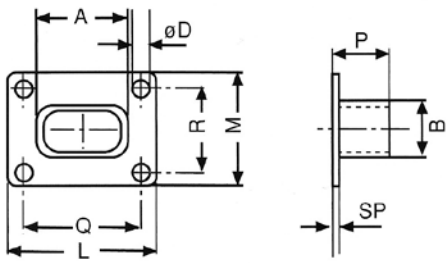
Dimensions (mm) and features									
TIPO	Model I								
NG	A	B	P	T	U	Z	X	ø D	Sp.
15	54	34	30	70	55	35	18	7	2,0
38	90	50	45	85	70	65	45	7	2,0
69	120	65	60	110	90	80	60	9	2,0
140	180	85	80	130	110	120	90	9	2,0

Front flanges - Model II



Dimensions (mm) and features								
TIPO	Model II							
NG	A	B	P	T	U	Z	ø D	Sp.
15	54	34	30	90	75	15	7	2,0
38	90	50	45	120	105	30	7	2,0
69	120	65	60	160	140	35	9	2,0
140	180	85	80	220	200	40	9	2,0

Front flanges - Model III



Dimensions (mm) and features									
TIPO	Model III								
NG	A	B	L	M	ø D	P	Q	R	S
15	54	34	85	65	7	30	70	50	2
25	54	54	85	85	7	30	70	70	2
38	90	50	120	80	7	45	105	65	2
42	70	70	100	100	7	45	105	85	2
51	90	65	120	95	7	45	105	80	2
69	120	65	150	95	9	60	135	80	2
92	120	85	150	115	9	60	135	100	2
126	145	95	175	125	9	60	160	110	2
140	180	85	210	115	9	80	195	100	2
154	145	115	175	145	9	80	160	130	2
193	180	115	210	145	9	80	195	130	2
242	225	115	255	145	9	100	240	130	2

AMU Principalli srl
ACCESSORI MACCHINE UTENSILI

Amuflex

Information

Contact

Registered office
Via Ida Fumagalli 16
23899 Robbiate (LC)

Headquarters
Via Como 124
23883 Brivio (LC)
Tel. 039 5320749
Fax 039 9273300

Purchase Office
commerciale@amusrl.com

Administration office
contabilita@amusrl.com

Foreign countries referent
tech@amusrl.com