

Manual

FUN

Ground Handling




SOL®
PARAGLIDERS

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WELCOME TO THE SOL TEAM

You have just acquired a high-quality product, manufactured under one of the most demanding industry standards worldwide. We are certain that this equipment will allow you to learn, increase and amplify your knowledge and technique for your flights.

We hope your FUN will provide you with many happy moments and that you're experiencing moments that will last forever in your memory. This way our philosophy will prove right: security, performance, easy handling and innovation.

Please, read this manual carefully. All necessary information you'll need for your new equipment is right here.

In case of questions or doubts regarding your paraglider or in case you simply are interested in our new products - we are at your disposal.

Thank you very much for choosing SOL PARAGLIDERS.

Symbols



Warnings and important notes - pay attention and read carefully



Additional information



Notes regarding environment protection



IMPORTANT NOTES

- This is an equipment for your training on the ground. It wasn't made for flight. You alone are responsible for all risks that come with its use. The inappropriate and/or abusive use of your equipment increases this risk.
- It's not possible to transfer this responsibility of risks, using this equipment, to the producer, distributor or seller.
- A regular training, whenever possible, especially on the ground, is indispensable and necessary. A poor handling and control of the glider, especially on the ground, is one of the most frequent causes of accidents.
- It is in your responsibility as a pilot to know what your insurance covers.
- We recommend that every new or reviewed paraglider will be inflated and verified on the ground.
- Always use your safety equipment (helmet, hand-gloves and boots).
- Check all your equipment before each training. Never use inappropriate or damaged equipment.
- All pilots have to follow the rules of the sport required in each country.
- Before each training check your physical and mental state. Are you fit for training?
- Before training choose the right equipment and environment, check the weather conditions, if you have any doubt - don't train.
- Never inflate your FUN during rain, snow, strong wind, turbulent conditions or if thunderstorm clouds are in the sky.
- If you are always training with consciousness - you'll be able to train for many years your FUN.



FUN - THE PROJECT

Ground-handling is one of the most important aspects of paragliding progression. With the FUN, pilots can progress and learn the most basic or most advanced aspects of groundhandling even in strong winds safely and easily.

The FUN is an equipment for your training on the ground. It wasn't made for flight. You alone are responsible for all risks that come with his use. The inappropriate and/or abusive use of your equipment increases this risk.

Don't take any risk! Never fly this equipment! Always be accompanied during training by your instructor.

Read this manual before using your equipment.

Recommendation



The FUN is destined to all pupils or pilots who are seeking to improve their domain over the paraglider. We recommend the use of safety equipment during the training.

Certification



The FUN is not certified, because he isn't a paraglider for flight, but only an equipment for training on the ground.

Special characteristics

Compact - Resistant - Easy control

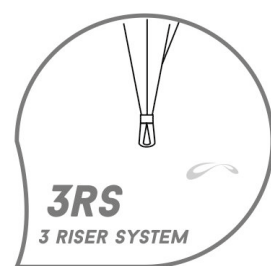
Accessories

Along with your FUN you receive:

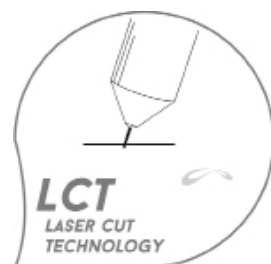
- Bag Fun.
- Packing strap.
- Protection sack for the risers.
- Manual.
- Windsock M.
- Little bonus surprise.



Technology



The 3 Riser System guarantees stability, 25% less lines, better weight distribution and less deformation throughout the years.



Cutting edge technology laser equipments prepare all molds and parts of the canopy.



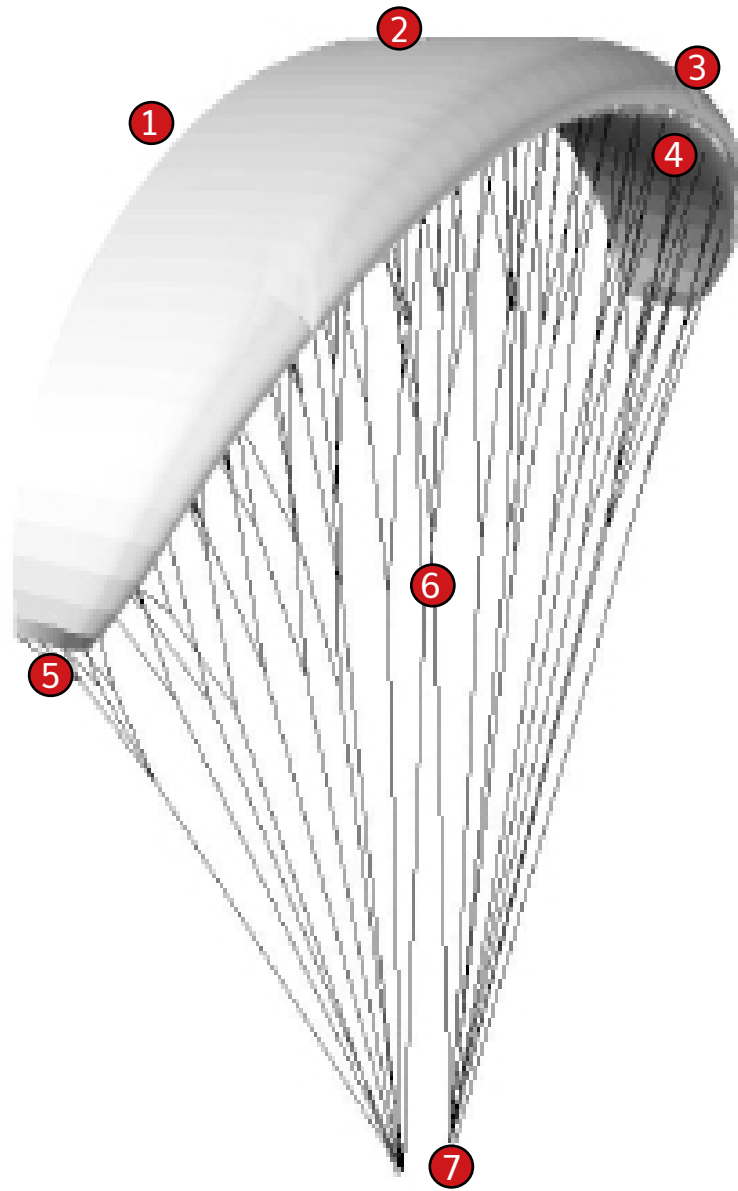
Fabrics composed out of different materials assure long life and more resistance with less deformation and weight.



FUN

Overview Fun

1. Trailing edge
2. Top
3. Leading edge
4. Bottom
5. Stabilo
6. Lines
7. Risers



Overview risers

1. Riser A.
2. Riser B.
3. Riser C.
4. Brake lines.
5. Toggle connection.
6. Taggle.
7. Connection to harness.

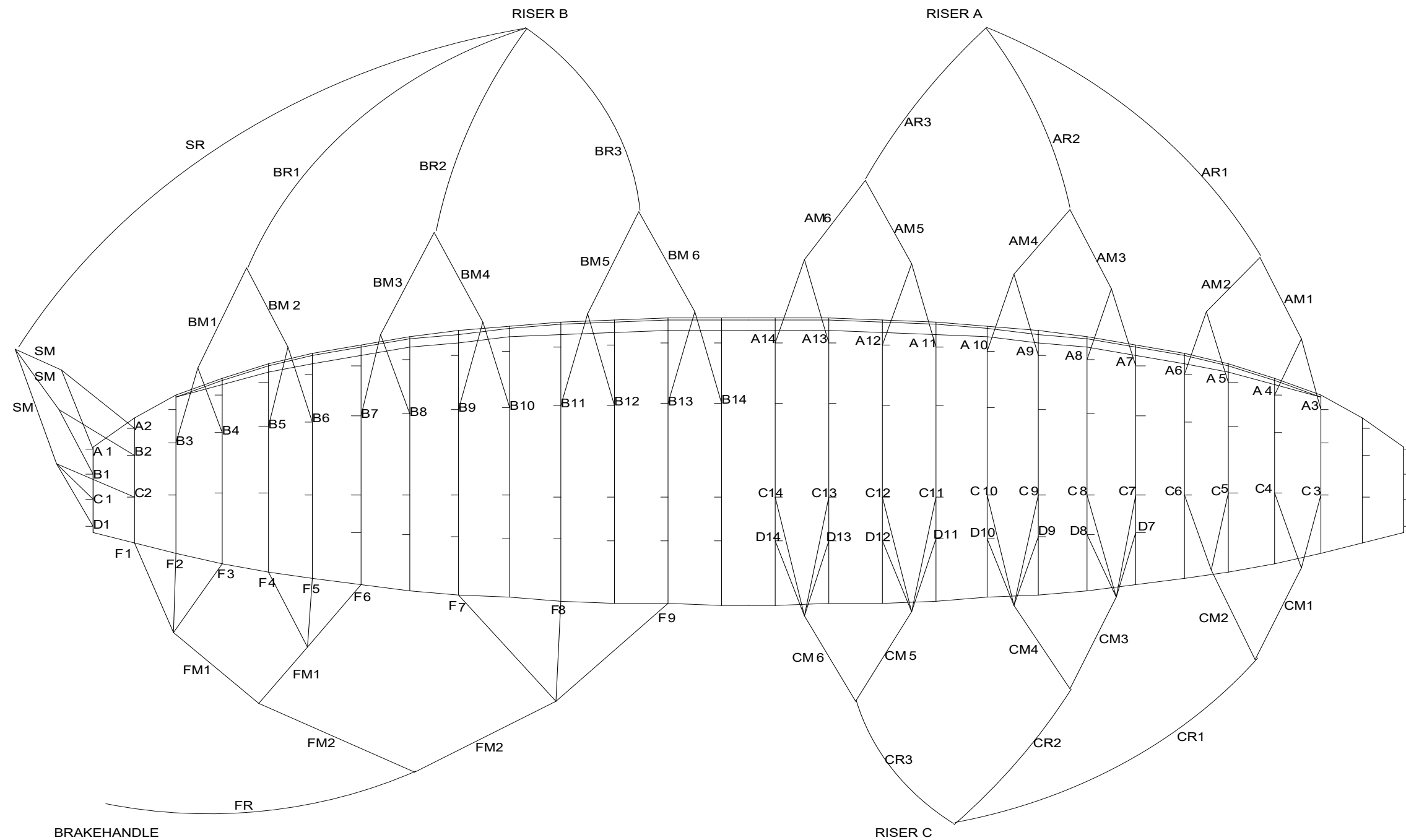


FUN

The suspension point design was developed for an ideal weight distribution and long life. During all consideration and calculation, security always is our first goal.. The used material mix for the lines of the FUN forms an ideal combination: long life with little deformation and aerodynamic drag.



FUN



PACKING



Step 1: Bundle up your FUN in form of a cabbage. This way you're avoiding that the FUN drags over the ground during folding.



Step 2: Begin with the center of the trailing edge. Put one profile over the other. Each side separate.



Step 3: Now do it in the same way with the leading edge profiles. Put the reinforcements of top and bottom in the right way, don't close the cell openings and push out the fabric.

Step 4: Fold the wing like an accordion from both sides and put one side over the other. Now all reinforcements are laying side-wise one above the other.



Step 5: Fold the sack as shown in the photo. This method is very gentle to the more stiffer parts of the FUN.



Step 6: At last put the FUN into the protection bag.



Storing

Most part of the FUN fabric is Nylon. As all other synthetic materials it suffers and deteriorates under the influence of ultraviolet radiation (UV). It loses its stiffness and gets more porous. Whenever it is possible avoid to submit your FUN to the sun light, it has a high UV rate, especially in heights. It is recommended to store your FUN very well whilst it not in use. It should be stored dry in a dry place, protected from UV rays, distant from chemical products. Avoid to store the FUN in hot places like the trunk of a car.



TIPS FOR CARE

- Over-stressing of individual lines, more than normal load in training, should be avoided. An excessive deformation is irreversible and can't be undone. For the same reason avoid stepping on the lines, bending or folding them, especially the main lines.
- Always open the FUN on clean ground, otherwise dirt could penetrate the fabric, shorten the lines or damage the canopy. Lines should not be entangled to objects during the phase of inflation, otherwise they could be deformed or damaged. Never step on the canopy, especially not on hard ground.
- Training with strong wind conditions could force the FUN to crash uncontrolled with high velocity on the ground, the crash could damage fabric and sewings.
- In case of a Line Over the brake lines could wear of or a main line could be cut by a brake line or crack by friction.
- Handling the FUN on a earthy ground under strong wind conditions accelerates the aging process of your equipment.
- After a water or tree landing the FUN must be sent for inspection to an authorized dealer's workshop.
- It must be avoided that sand, stones or snow enter in the cells, otherwise the weight on the trailing edge could brake the glider and cause a full-stall. Besides, the sharpened edges could damage the sail's fabric.
- Training be careful, avoid crashing the leading edge on the ground. Otherwise the material and sewings of the cell openings could be damaged.
- In case the FUN gets in contact with salty water, he must be washed with sweet water and dry in the shadow. Never use tools to accelerate the drying process. Salty water could reduce the line resistance and increase the porosity of the fabric, even washed out with sweet water.
- After any kind of accident: the equipment must be sent for inspection to an authorized dealer's workshop or to the manufacturer.
- Keep up to the required inspection data, to assure that your equipment is always save for use.

INSPECTION

This equipment wasn't made for flight, nevertheless, keep him well maintained is very important for a correct functionality. We recommend an annual revision.



REPAIRS

Repairs must only be made by an authorized dealer's workshop or to the manufacturer.



WARRANTY

WARRANTY - 1 YEAR / 100 HOURS OF USE

SOL Paragliders is giving a product warranty against defect materials and fabrication defects, within normal conditions of use, in other words within the use the product is destined for, during 1 (one) year or 100 hours of use, whatever comes first, as long as the conditions pre-defined were observed.

The warranty covers the pay free repair or substitution, within the fabrics understanding, of the materials for others in perfect conditions.

Warranty Terms:

1. This information to use materials and errors of manufacturing product, due observated as goals are;

Warranty Pre-requisites:

1. A warranty registration must be filled out correctly within 30 days after the purchase (you can find the registration here: www.solparagliders.com.br/registro.php).

2. The equipment must be kept and used in accordance with the instructions provided in this manual. All the storage, folding, cleaning and care instructions must be carefully taken.

3. Maintenance and inspections can only be performed by the manufacturer or authorized dealers' workshops and must be properly documented.

4. The owner is responsible for all shipping expenses to and from the manufacturer.

5. In order to make a plea for repair or equipment exchange, which shall be decided and performed only by SOL Paragliders, the owner must send the paraglider to the manufacturer with the following documents:

- The product and a copy of all inspection data and the history of use.
- A copy of the warranty registration from SOL Paragliders

This Warranty Does Not Cover:

1. Any alterations on original fabric colors, lines and risers.

2. Any damage caused by chemical products, sand, friction, cleaning products or salt water.

3. Any damage caused as a result of errors during operation, incidents or emergency situations.

4. Any damage caused by inadequate operation of the product.

5. A product that may have been subjected of any alteration from the original design and without proper permission from SOL Paragliders.

6. Damages caused by inappropriate transport, storage or settings of the product.

7. Damages caused by the use of not compatible components with the product.

8. Damages caused by the use of inappropriate packaging for the transport.

9. Products without original identification label and serial number.

10. Handling the product otherwise than to the instructions given in the owner's manual.



ENVIRONMENT AND RECYCLING

Please be aware of our environment: don't toss your FUN into nature, respect the animals. Remember: nature is our FUN engine.

If your FUN gets out of use remember it cannot be recycled. Please give it to your dealer or your flying-school, they should know how to handle it.



TECHNICAL DATA

Weight, measure and data

Model	12	14	
Cells	27	27	
Real Suface	12,73	14,30	m ²
Real Span	7,78	8,25	m
Real A/R	4,75	4,75	
Projected Surface	11,07	12,44	m ²
Projected Span	6,34	6,72	m
Projected A/R	3,63	3,63	
Line diameter	Dyneema PPSLS 0.7 - 1.0 - 1.2 - 1.6		mm
Weigth	2,5	3,0	kg
Risers	3	3	



Parts and materials

Top	WTX 40 PU + Silicon 40 gr/sm
Bottom	WTX 36 PU + Silicon 36 gr/sm - WTX 40 PU + Silicon 40 gr/sm
Profiles/Diagonal taps	Pro-Nyl High Tenacity Nylon rip-stop Hard finish 36 gr/sm
Reinforcements	Nylon Maxfio 2,5 mm
Reinforcements inside/outside	Cetim Polyester 25mm
Loops	FRL0027 Polyester 10 X 1.0 mm white
Sewing thread on canopy	Graal Polyester filament continuous 60 white
Sewing thread on risers	Nylbond Polyester filament continuous 30 - 40 Black
Lines	Liros Dyneema PPSLS 0.7 - 1.0 - 1.2 - 1.6 mm
Quick Links	Ansung Precision 22 mm. 800 kg
Risers	Polyester Venus 19 mm. 1.600 kg
Pulleys	Nylon Sol 12 mm

Lines

Model	PPSLS 65	PPSLS 125	PPSLS 180	PPSLS 260
Manufacturer	Liros GER	Liros GER	Liros GER	Liros GER
Number resistance test	LKT 0561	LKT 1630	LKT 1531	LKT 1529
Diameter	0.7 mm	1.0 mm	1.2 mm	1,6 mm
Material	Dyneema	Dyneema	Dyneema	Dyneema
Rope coating	Polyester	Polyester	Polyester	Polyester
Resistance after bending	40 daN	121,4 daN	142,9 daN	182,3 daN



Line lengths

FUN 12

	A	B	C	D	F
1	4786	4779	4789	4827	4916
2	4893	4866	4892		4918
3	5019	4994	5025		4948
4	5066	5037	5080		4972
5	5118	5082	5136		4998
6	5175	5135	5199		5076
7	5208	5165	5235	5322	5141
8	5199	5152	5230	5326	5227
9	5217	5167	5248	5354	5461
10	5265	5212	5295	5403	7089
11	5291	5236	5320	5434	7368
12	5282	5224	5311	5429	
13	5306	5247	5334	5453	
14	5361	5302	5389	5503	



Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

FUN 14

	A	B	C	D	F
1	5059	5052	5063	5107	5209
2	5171	5143	5172		5213
3	5304	5278	5317		5246
4	5353	5323	5375		5272
5	5407	5369	5433		5298
6	5467	5424	5497		5380
7	5501	5455	5532	5627	5445
8	5491	5440	5525	5630	5531
9	5508	5454	5543	5657	5774
10	5557	5500	5591	5708	7357
11	5584	5525	5617	5738	7643
12	5573	5511	5605	5732	
13	5597	5533	5628	5756	
14	5653	5591	5685	5808	



Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser



Line lengths individually

FUN 12

Name	Line reference	Diameter / mm	Number of lines	Lenght / mm
A1	Liros PPSLS 125	1,05	2	827
A2	Liros PPSLS 125	1,05	2	934
A3	Liros PPSLS 125	1,05	2	660
A4	Liros PPSLS 125	1,05	2	707
A5	Liros PPSLS 125	1,05	2	759
A6	Liros PPSLS 125	1,05	2	816
A7	Liros PPSLS 125	1,05	2	849
A8	Liros PPSLS 125	1,05	2	840
A9	Liros PPSLS 125	1,05	2	858
A10	Liros PPSLS 125	1,05	2	906
A11	Liros PPSLS 125	1,05	2	932
A12	Liros PPSLS 125	1,05	2	923
A13	Liros PPSLS 125	1,05	2	947
A14	Liros PPSLS 125	1,05	2	1002
AM 1	Liros PPSLS 125	1,05	2	930
AM 2	Liros PPSLS 125	1,05	2	930
AM 3	Liros PPSLS 125	1,05	2	930
AM 4	Liros PPSLS 125	1,05	2	930
AM 5	Liros PPSLS 125	1,05	2	930
AM 6	Liros PPSLS 125	1,05	2	930
AR 1	Liros PPSLS 125	1,05	2	2900
AR 2	Liros PPSLS 180	1,2	2	2900
AR 3	Liros PPSLS 260	1,58	2	2900
B1	Liros PPSLS 125	1,05	2	820
B2	Liros PPSLS 125	1,05	2	907
B3	Liros PPSLS 125	1,05	2	635
B4	Liros PPSLS 125	1,05	2	678
B5	Liros PPSLS 125	1,05	2	723
B6	Liros PPSLS 125	1,05	2	776
B7	Liros PPSLS 125	1,05	2	806
B8	Liros PPSLS 125	1,05	2	793
B9	Liros PPSLS 125	1,05	2	808
B10	Liros PPSLS 125	1,05	2	853
B11	Liros PPSLS 125	1,05	2	877
B12	Liros PPSLS 125	1,05	2	865
B13	Liros PPSLS 125	1,05	2	888
B14	Liros PPSLS 125	1,05	2	943
SM	Liros PPSLS 125	1,05	6	750
BM 1	Liros PPSLS 125	1,05	2	930
BM 2	Liros PPSLS 125	1,05	2	930
BM 3	Liros PPSLS 125	1,05	2	930
BM 4	Liros PPSLS 125	1,05	2	930
BM 5	Liros PPSLS 125	1,05	2	930
BM 6	Liros PPSLS 125	1,05	2	930
SR	Liros PPSLS 125	1,05	2	2680
BR 1	Liros PPSLS 125	1,05	2	2900
BR 2	Liros PPSLS 180	1,2	2	2900
BR 3	Liros PPSLS 260	1,58	2	2900
C1	Liros PPSLS 125	1,05	2	830

FUN 12

Name	Line reference	Diameter / mm	Number of lines	Lenght / mm
C2	Liros PPSLS 125	1,05	2	933
C3	Liros PPSLS 125	1,05	2	666
C4	Liros PPSLS 125	1,05	2	721
C5	Liros PPSLS 125	1,05	2	777
C6	Liros PPSLS 125	1,05	2	840
C7	Liros PPSLS 125	1,05	2	956
C8	Liros PPSLS 125	1,05	2	951
C9	Liros PPSLS 125	1,05	2	969
C10	Liros PPSLS 125	1,05	2	1016
C11	Liros PPSLS 125	1,05	2	1041
C12	Liros PPSLS 125	1,05	2	1032
C13	Liros PPSLS 125	1,05	2	1055
C14	Liros PPSLS 125	1,05	2	1110
CM 1	Liros PPSLS 125	1,05	2	930
CM 2	Liros PPSLS 125	1,05	2	930
CM 3	Liros PPSLS 125	1,05	2	850
CM 4	Liros PPSLS 125	1,05	2	850
CM 5	Liros PPSLS 125	1,05	2	850
CM 6	Liros PPSLS 125	1,05	2	850
CR 1	Liros PPSLS 125	1,05	2	2900
CR 2	Liros PPSLS 180	1,2	2	2900
CR 3	Liros PPSLS 260	1,58	2	2900
D1	Liros PPSLS 125	1,05	2	868
D7	LIROS PPSLS 60	0,76	2	1043
D8	LIROS PPSLS 60	0,76	2	1047
D9	LIROS PPSLS 60	0,76	2	1075
D10	LIROS PPSLS 60	0,76	2	1124
D11	LIROS PPSLS 60	0,76	2	1155
D12	LIROS PPSLS 60	0,76	2	1150
D13	LIROS PPSLS 60	0,76	2	1174
D14	LIROS PPSLS 60	0,76	2	1224
F1	Liros PPSLS 125	1,05	2	867
F2	Liros PPSLS 125	1,05	2	869
F3	Liros PPSLS 125	1,05	2	899
F4	Liros PPSLS 125	1,05	2	923
F5	Liros PPSLS 125	1,05	2	949
F6	Liros PPSLS 125	1,05	2	1027
F7	Liros PPSLS 125	1,05	2	1728
F8	LIROS PPSLS 125	1,05	2	1814
F9	LIROS PPSLS 125	1,05	2	2048
FM1	LIROS PPSLS 125	1,05	2	650
FM2	LIROS PPSLS 125	1,05	2	1500
FR	LIROS PPSLS 260	1,05	2	1930



FUN 14

Name	Line reference	Diameter / mm	Number of lines	Lenght / mm
A1	Liros PPSLS 125	1,05	2	892
A2	Liros PPSLS 125	1,05	2	1004
A3	Liros PPSLS 125	1,05	2	712
A4	Liros PPSLS 125	1,05	2	761
A5	Liros PPSLS 125	1,05	2	815
A6	Liros PPSLS 125	1,05	2	875
A7	Liros PPSLS 125	1,05	2	909
A8	Liros PPSLS 125	1,05	2	899
A9	Liros PPSLS 125	1,05	2	916
A10	Liros PPSLS 125	1,05	2	965
A11	Liros PPSLS 125	1,05	2	992
A12	Liros PPSLS 125	1,05	2	981
A13	Liros PPSLS 125	1,05	2	1005
A14	Liros PPSLS 125	1,05	2	1061
AM 1	Liros PPSLS 125	1,05	2	985
AM 2	Liros PPSLS 125	1,05	2	985
AM 3	Liros PPSLS 125	1,05	2	985
AM 4	Liros PPSLS 125	1,05	2	985
AM 5	Liros PPSLS 125	1,05	2	985
AM 6	Liros PPSLS 125	1,05	2	985
AR 1	Liros PPSLS 125	1,05	2	3075
AR 2	Liros PPSLS 180	1,2	2	3075
AR 3	Liros PPSLS 260	1,58	2	3075
B1	Liros PPSLS 125	1,05	2	885
B2	Liros PPSLS 125	1,05	2	976
B3	Liros PPSLS 125	1,05	2	686
B4	Liros PPSLS 125	1,05	2	731
B5	Liros PPSLS 125	1,05	2	777
B6	Liros PPSLS 125	1,05	2	832
B7	Liros PPSLS 125	1,05	2	863
B8	Liros PPSLS 125	1,05	2	848
B9	Liros PPSLS 125	1,05	2	862
B10	Liros PPSLS 125	1,05	2	908
B11	Liros PPSLS 125	1,05	2	933
B12	Liros PPSLS 125	1,05	2	919
B13	Liros PPSLS 125	1,05	2	941
B14	Liros PPSLS 125	1,05	2	999
SM	Liros PPSLS 125	1,05	6	795
BM 1	Liros PPSLS 125	1,05	2	985
BM 2	Liros PPSLS 125	1,05	2	985
BM 3	Liros PPSLS 125	1,05	2	985
BM 4	Liros PPSLS 125	1,05	2	985
BM 5	Liros PPSLS 125	1,05	2	985
BM 6	Liros PPSLS 125	1,05	2	985
SR	Liros PPSLS 125	1,05	2	2840
BR 1	Liros PPSLS 125	1,05	2	3075
BR 2	Liros PPSLS 180	1,2	2	3075
BR 3	Liros PPSLS 260	1,58	2	3075
C1	Liros PPSLS 125	1,05	2	896

FUN 14

Name	Line reference	Diameter / mm	Number of lines	Lenght / mm
C2	Liros PPSLS 125	1,05	2	1005
C3	Liros PPSLS 125	1,05	2	720
C4	Liros PPSLS 125	1,05	2	778
C5	Liros PPSLS 125	1,05	2	836
C6	Liros PPSLS 125	1,05	2	900
C7	Liros PPSLS 125	1,05	2	1022
C8	Liros PPSLS 125	1,05	2	1015
C9	Liros PPSLS 125	1,05	2	1033
C10	Liros PPSLS 125	1,05	2	1081
C11	Liros PPSLS 125	1,05	2	1107
C12	Liros PPSLS 125	1,05	2	1095
C13	Liros PPSLS 125	1,05	2	1118
C14	Liros PPSLS 125	1,05	2	1175
CM 1	Liros PPSLS 125	1,05	2	985
CM 2	Liros PPSLS 125	1,05	2	985
CM 3	Liros PPSLS 125	1,05	2	900
CM 4	Liros PPSLS 125	1,05	2	900
CM 5	Liros PPSLS 125	1,05	2	900
CM 6	Liros PPSLS 125	1,05	2	900
CR 1	Liros PPSLS 125	1,05	2	3075
CR 2	Liros PPSLS 180	1,2	2	3075
CR 3	Liros PPSLS 260	1,58	2	3075
D1	Liros PPSLS 125	1,05	2	937
D7	LIROS PPSLS 60	0,76	2	1115
D8	LIROS PPSLS 60	0,76	2	1118
D9	LIROS PPSLS 60	0,76	2	1145
D10	LIROS PPSLS 60	0,76	2	1196
D11	LIROS PPSLS 60	0,76	2	1226
D12	LIROS PPSLS 60	0,76	2	1220
D13	LIROS PPSLS 60	0,76	2	1244
D14	LIROS PPSLS 60	0,76	2	1296
F1	Liros PPSLS 125	1,05	2	930
F2	Liros PPSLS 125	1,05	2	934
F3	Liros PPSLS 125	1,05	2	967
F4	Liros PPSLS 125	1,05	2	993
F5	Liros PPSLS 125	1,05	2	1019
F6	Liros PPSLS 125	1,05	2	1101
F7	Liros PPSLS 125	1,05	2	1842
F8	LIROS PPSLS 125	1,05	2	1928
F9	LIROS PPSLS 125	1,05	2	2171
FM1	LIROS PPSLS 125	1,05	2	690
FM2	LIROS PPSLS 125	1,05	2	1590
FR	LIROS PPSLS 260	1,05	2	2030





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