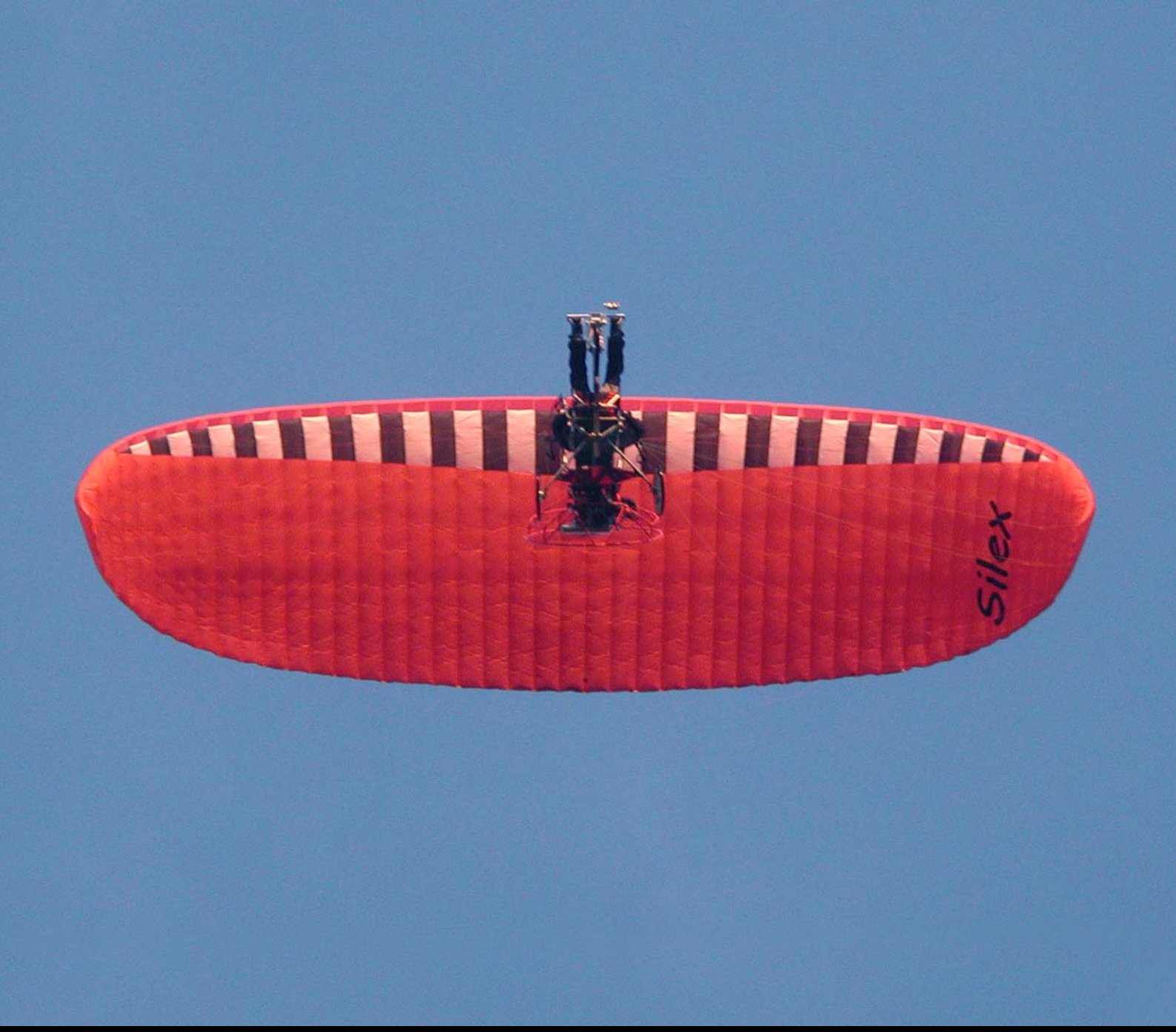


SILEX
MANUAL

FRESH BREEZE

This manual is fairly detailed and will assist you in improving your knowledge of the glider.

The SILEX is a high performing wing, designed and built utilising the latest results of our profile research. In developing and constructing the SILEX have paid an equal amount of attention to both safety and performance. The SILEX is suited for recreational pilots who fly on a regular basis as well as ambitious cross country pilots. Always remember that a certain amount of flying experience is a pre-requisite for opening up new flying horizons with ample safety reserves.

The descriptions of the extreme manoeuvres detailed herein, are to familiarise you with the characteristics of the SILEX. However, we recommend that you try testing the limits of your new equipment slowly and safely. Certain extreme manoeuvres must only be performed at great height or above water with the appropriate equipment (emergency parachute, life jakket), and under supervision.

Your “SILEX” has been test flown at the factory and/or by your dealer. Nevertheless, you should initially fly the glider at a training site to check its airworthiness. Choose calm conditions and a safe take-off site. Accident-free and enjoyable flying is far more important than a few additional moments in the air or showing off near the ground.

We hope your new ”SILEX” will bring you many hours of fun and safe flying. Please do not hesitate to contact us for further information.

Your Fresh Breeze Team

The “SILEX” is a paraglider only for motor and must not be used as a parachute. The use of the equipment is at your own risk. The manufacturer accepts no liability for damage caused by or to the glider.

FRESH BREEZE

LANGER ACKER 11
30900 WEDEMARK-BISSENDORF

TEL. 05130-3769922
FAX. 05130-3769944

E-MAIL:FRESH.BREEZE@T-ONLINE.DE
HTTP:WWW.FRESH-BREEZE.DE

Pre-Flight Checks

Apart from the usual checks, the following items should be examined periodically. Start at any point and work around the whole canopy checking its sewing, lines, knots and fabric.

- Has any damage occurred due to ultraviolet exposure ? Though the fabric has been UV treated, it is not UV resistant.
- Does the glider show signs of tearing/ripping or other damage?
- Check each line individually. Is it in proper working order? Are the knots in the correct position? The lines should not be tangled or show signs of wear and tear.
- Check the brake lines are in proper working order, correctly adjusted, clear of knots and tangles, and securely connected to the handle.
- Are all triangle locks properly screwed shut?
- Are the canopy and the risers dry? Never fly with a wet canopy as this makes the take-off more difficult and changes the flight characteristics of the glider.
- Check the seat and harness: Ensure the leg straps are tight and of equal length, and that the chest straps are tight and in the correct position.
- Check the brake handles, risers and seams for faults.

Break Settings

The factory break setting is fixed at a point where the brakes begin to work after approximately 12 cm of travel. You can shorten the length of the break lines to improve the subjective handling, but only by a maximum of 5 cm. Under no circumstances should the break lines be so short as to activate the breaks constantly. This would alter the wings reaction in any manoeuvre carried out during Gütesiegel testing. A lengthening of the breaks is, in principal, not dangerous but the subjective handling of the glider will be poorer. If the breaks are set too long, we recommend wrapping the breaks once around your hands. If you should have any problems, your authorised Fresh Breeze dealer will advise and be of assistance to you.

Canopy Layout

We recommend that you lay the canopy out in an apex or mushroom shape with the underside facing skywards. The leading edge (cell openings) should be facing into the wind. Pull the lines until they are taut and disentangle any lines that are twisted or trapped.

Launch

The SILEX is launched in the conventional way, by pulling on the A risers. Depending on the terrain and wind, the glider should be slowed down slightly, by breaking as it gets overhead.

Flight

Your SILEX has excellent flying characteristics, yet we recommend that you get to know your glider thoroughly. In this handbook we have divided the flying instructions into three chapters:

1. flying characteristics
2. rapid descent techniques
3. extreme flying manoeuvres

The last chapter deals with the special characteristics of your “SILEX” during extreme manoeuvres, but their execution demands some degree of experience. We strongly discourage acrobatic or ‘display’ flying and recommend that all pilots participate in safety training. Your dealer will be able to provide further information on safety courses.

1. Flying Characteristics

Zero Position

The “SILEX” comes either with or without the foot-operated speed bar. The canopy has been trimmed in such a way that it is always in the zero position unless you have adjusted it. Zero position is used as a starting point in describing all other positions.

Best Glide

Best glide is achieved in still air with zero break . The speed system should be used to improve the glide into wind. As the SILEX has a very flat polar curve the speedtrim can and should be used frequently.
Still, do bare in mind that fully accelerated the glider will react more sensitive to turbulence.

Minimal descent

This can be achieved with 20 -30 % brake. The more brake you apply, the slower the glider becomes and the faster you descend. This is very useful when preparing to land. If you want to do a ‘shallow’ or ‘flat’ turn in thermals, brake the “SILEX” on both sides and alter your course within the thermal circle by using your outside brake.

”S” Turns

To enter into thermals or in order to achieve steeper bank angles, only brake the glider on one side. The “SILEX” has no negative tendencies, however, be sensitive to the gliders reaction when doing these turns.

Flying in Turbulence

You should apply slight brake pressure, around 20 %. Try to keep the canopy above yourself by actively adjusting the brakes. This requires some practise, but is essential for safe flying in turbulence. It also prevents wing collapses. Nevertheless, should this happen, it is important to maintain your direction and if necessary steer away from the hillside. You must not attempt to inflate the canopy by “pumping” the brake until the glider is stable and you are flying straight and on the correct course.

Note: If a collapse has occurred, use the opposite brake to stabilise and straighten the canopy. Rather brake too little than too much!

Acceleration

You need to practice using the foot-operated speed bar. To be able to control the glider with your feet as well as with your hands is especially important when flying in turbulence. When changing from lift to sink, it is essential to take your foot off the speed bar in order to prevent a possible collapse.

Note: The canopy becomes more sensitive when the speedtrim is being used. We recommend that in strong turbulence it is only used intermittently when descending. Should a collapse occur whilst the trim is pressed down, release it immediately. Steer into the wind and re-inflate the canopy.

Parachutal Stall

A stable parachutal stall has not been achieved in test flights. However, should your glider engage into a continuous descent, give the A risers a short downwards pull until the canopy resumes its forward flight.

2. Rapid Descent Techniques

Big Ears

The “SILEX” has optional “big ears” which accelerate your forward descent to approximately 4 m/ps.

To achieve this, grip the TWO outer lines of the A risers as high up as possible and without letting go of the brakes, pull the lines down until the cells fold in..This method is specially useful when flying in strong winds and thermals as it prevents you from being pushed back into the lee side. It can also be used to get away from any clouds.

The cells usually re-inflate automatically once the A lines or riser are released. Should this fail, “pump” the relevant brake as described above.

Note: You can increase both your descent and forward speed when flying with big ears by fully extending the speed bar. This puts you into a stable state of flight and allows limited steering with your body. Your descent rate can be increased to ca. 6 m/ps.
Never ever do spirals in this position!

B-line Stall

B-line Stalls are an excellent method of rapid descent (up to 10 m/ps). To induce a B-line Stall, grip the B-lines above the B-riser carabiners and pull both risers down evenly. Resistance will decrease as your hands. The wing will fold along the B-line links and your rate of descent will increase noticeably.

The wing may fold forward into a U shape if you pull the risers down too far. This is unsafe, and you should release the B-risers slowly and evenly to regain normal flight. Do not release the risers in a rapid or uncontrolled fashion.

If you release the risers too slowly you may enter a parachutal stall for 1-2 seconds, this condition normally corrects itself with a slight pendular movement. Press the A-risers should the parachutal stall persist. Whatever you do, do not apply the brakes when in this situation.

Front Stall

The rate of descent will increase to up to 8 m/s when a full front stall is implemented. Due to the rapid descent and the difficulties experienced in controlling a symmetrical recovery, it is recommended that this manoeuvre is avoided. The recovery from a front stall is aided by application of brake pressure.

Upon re-inflation the wing may accelerate and shoot (up to 45 degrees) over your head. This can be counteracted by sensitive application of brake pressure.

Spirals

This glider is made for easy and big spirals. It is possible to achieve a rate of descent of up to 15 m/s in a spiral. To induce a spiral pull down one brake evenly. An increase in pitch should be associated with this application otherwise one runs the risk of inducing a negative spin. It is always best to utilise weight shift to the inside of the spiral to support the initiation of this manoeuvre. Should velocity decrease, re-initiate the manoeuvre, do not just apply more brake pressure!

3. Extreme Flight Manoeuvres

The following paragraphs describe the characteristics of the SILEX when experiencing extreme manoeuvres in flight. They will assist you in selecting the best way to control the glider in these situations.

Note: The SILEX hardly ever shoots out of extreme manoeuvres, so there is no need to stabilise the glider by braking hard in any of the following situations. In fact, braking might result in the SILEX returning to the same extreme status. It is more important to give the canopy sufficient time to open up, and only use the slightest brake action to assist the re-inflation of the canopy. In all these situations remember that less braking is far better than too much braking. The SILEX very quickly returns to its normal flying position.

Full Stall

This may occur:

- If you fly head-on into a thermal whilst breaking hard.
- When braking hard at over 100 % (hands at seat height).

Full stall is indicated when the canopy becomes soft above your head and then falls backwards. The wing then stabilises in a full stall with its “ears” pointing forward above the pilot.

To achieve the full stall we recommend that you wrap the brake lines around your hands at least once. Press the brakes down slowly until you stop going forwards. As you keep applying the brakes the canopy continues to fall backwards. It is vital that you DO NOT RELEASE THE BRAKES during this phase. The canopy then contracts and stabilises itself above you, its “ears” pointing forwards.

To exit from a full stall, release the brakes slowly and evenly for 3 to 5 seconds. It is important to give the canopy sufficient time to open up. That means: hold your hands high!

Note: Should your SILEX fall into a full stall during another manoeuvre, do not suddenly release the brakes, but guide the canopy back into its normal flying position. This will prevent the pendulum effect (sudden dynamic advance of canopy).

Negative Turns (Flat Spins)

The SILEX is hard to set in this manoeuver

But following will support flat spin

- Whilst braking hard when one brake is either applied more or released faster than the other.

- Fast braking of over 70 % on only one side when flying at normal speed.

- Flat spins usually occur during thermal flying, uneven application of brakes when landing, initiating a new flying position too hastily, or when one brake is pulled beyond the critical point of 70 - 100 %.

Negative turns are indicated by the softening of the braked side of the canopy, which then recedes backwards inducing a backward spin. Should you encounter this situation, RELEASE THE BRAKES! The canopy will automatically stabilise itself. Possible collapse of one wing can be countered as described in “flying in turbulence”.

Asymmetric Collapse

Asymmetric collapses usually occur when flying in strong lift or turbulence.
The air empties out of one side of the wing and it collapses. The vents will then turn towards the collapsed side. If not stabilised, the *SILEX*l re-inflate after turning 180˚-360˚. Braking on the opposite side will prevent the glider from turning. Do not apply too much brake. It is only necessary to prevent the glider from turning. The wing should re-inflate without input, however, you can assist by pumping the deflated side. Remember to keep applying the brake on the opposite side until the wing is stable and flying in the correct direction.

Front Tuck

Front Tucks may occur when flying in very turbulent air. Flying the glider actively - by countering canopy movement through light brake input - will prevent front tucks in most cases. A front tuck will recover independently. By applying some brake on either side you may assist and accelerate the recovery.If possible reduce the power of the motor.

Landing

To reduce the forward speed and glide of the canopy when setting up for landing, brake at about 50 %. You achieve a soft landing if you brake continually shortly before touching down.You can land under power or with switched off motor.Do not brake to early.

Folding away

We recommend that you sort the lines and loosely throw them on top of the canopy before folding it up. Folding the canopy from both ends towards the middle has proven to be the most effective and efficient method. You end up with a strip approx. 60 cm wide. Roll this up from the trailing edge to the leading edge and hold it together with the strap provided. The enclosed stuff bag offers additional protection against any damage.

Transport

The paragliding equipment is best transported in its own rucksack or carrying case, as sunlight and too much heat can affect the equipment adversely. If transporting your glider by car, please remember that the exhaust can substantially heat up some parts of the boot, which can be damaging to both fabric and lines. For the same reason it is recommended that you do not leave your unprotected equipment under windows where it may be affected by direct sunlight.

Storage

All the equipment should be stored away from light in a dry, well ventilated room, and protected from temperature fluctuations. Rooms where petrol, solvents, or other chemically aggressive substances are stored are unsuitable. If you will not be flying your *SILEX* for more than a few weeks, we recommend that you open the backpack and slightly unroll the glider to release the tension. This will circulate air around it and allow it to breath.

Should the canopy become wet, spread it out so that the air can dry all areas. This is best achieved by laying out the entire canopy. Even if the fabric feels dry, it may not be. The fibres retain moisture and the water takes longer to diffuse out of the fibres than it takes to evaporate on the surface. Thus your canopy may feel dry in the evening, but may be wet again the following morning. It can take several days for the canopy to dry out completely. This is an essential process and if it is ignored, the material will become porous and impede the efficiency of your glider.

Servicing

Your equipment needs constant checking, especially the canopy material, the seams, the lines, and last but not least, the harness and straps. As part of the guaranteed safety certificate the producer in Germany is required to check the glider every second year.

Checking Data

Your glider and especially the lines may become distorted by extreme weather conditions or excessive use. Should you get the impression that your glider's performance has changed, please return it to Fresh Breeze or your local dealer for checking.

It is not necessary to change parts of your glider regularly. Should it be necessary to replace parts due to damage or wear and tear, only original parts or those authorised by the producer, may be used.

Repairs

Repairs to the glider should only be undertaken by the manufacturers or experts recommended by them. In places of minimal stress, small tears up to 3 cm in the sail (but not the seams) may be repaired using
approved materials. Do not replace lines or perform repairs using celotape, masking tape or similar products. Please remember that
it is always preferable to let your local dealer carry out any repairs on your glider.

Cleaning

Should your canopy ever become soiled, wipe it down with a soft sponge and clear water. If the dirt is ingrained, use warm water and soap flakes. Ensure the canopy is completely dry before storing it away. Any cleaning with aggressive chemicals, excessive force, or hot water weakens the fabric, dissolves the surface finish and renders the canopy useless. If in doubt, put up with a few blemishes on your canopy and rather ensure that you have a safe and secure glider.

Compatibility with other motorsystems

The SILEX has to two sets of risers and can be used with any motorunits with two attachment points.

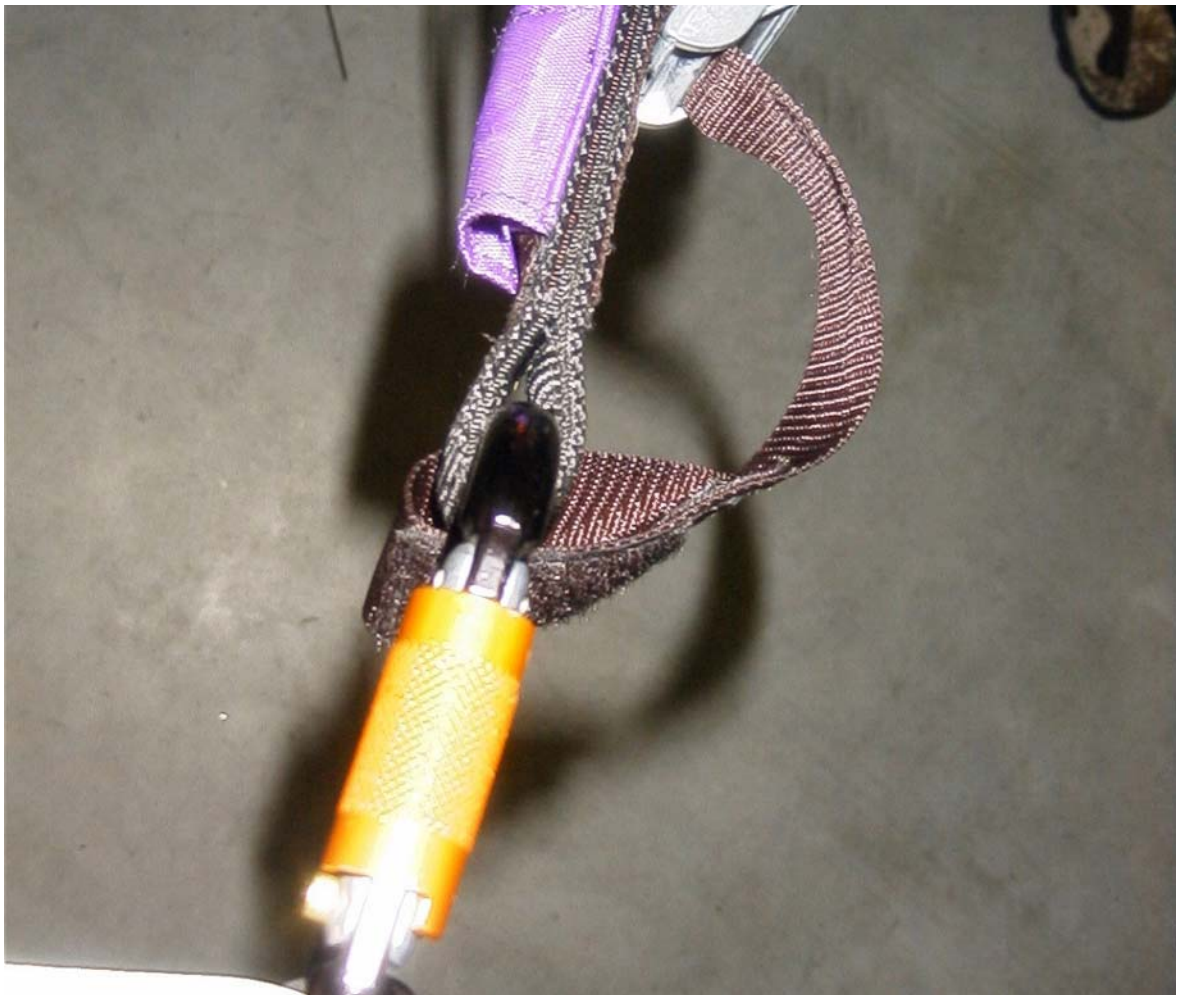
Artistic Display Flying

Acrobatic or 'display' flying is not recommended when flying the SILEX.

Trimmer

The Silex is equipped with a trimm-system. This compensate the torc which will tranmit from motor to the glider. This means the glider will fly unter power permant a curve. If you open one side you can prevent this. For *safety* you have to fix the end of the trim into the karabiner spring safety hook. So you can use only a part of the way from the trimm.

Look at the picture:

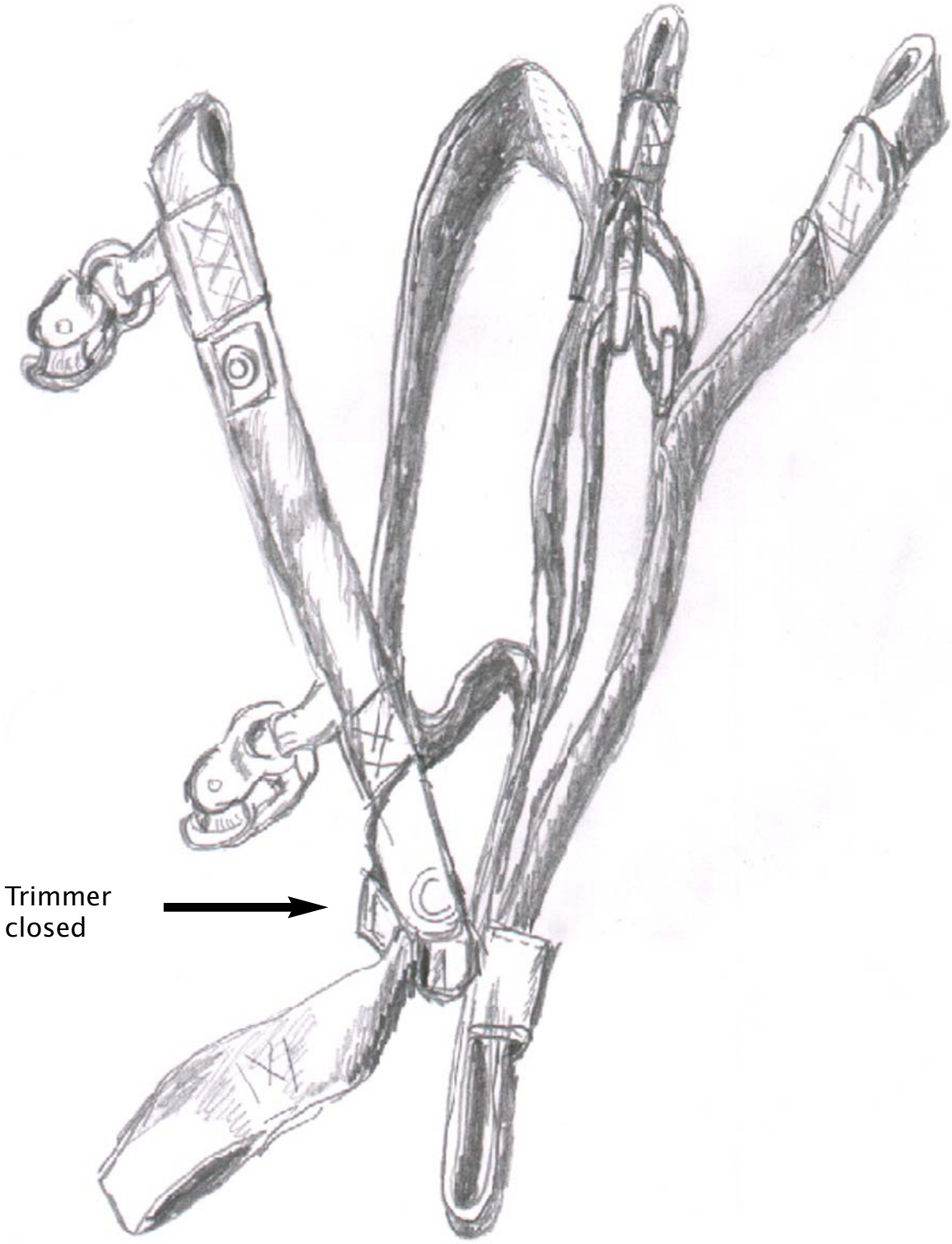


Riser

This riser have a shortend lengh.This is nesscesary to practice the previously described “ big ears” and” b-stall”. Likewise these system has trimmer.(look drawing) Herewith you can:

1. equalize the torc from motor and
2. speed up the SILEX

Trimmer closed: slow flight for take off and landing
Trimmer open: fast flight



SILEX - Specifications

Model	***S***	***M***	***L***
Recommended pilot weight (kg)	**60-85**	**80-105**	**90-115**
Departure weight (kg)	**70 - 120**	**90-140**	**90-150**
Cells	**48**	**48**	**48**
Wing area real (sqm)	**24,6**	**27,9**	**29**
Wing area projected (sqm)	**20,8**	**23,9**	**25,2**
Wing span (m)	**10,8**	**11,6**	**12,1**
Projected wing span (m)	**9,0**	**9,8**	**10,1**
Aspect ratio	**4,75**	**4,8**	**5**
Projected aspect ratio	**3,9**	**3,95**	**4,05**
Canopy weight (kg)	**5,8**	**6,2**	**6,4**
Linelength (cm)	**670**	**710**	**73**
Speed min. - max. (km/h)	**20-50**	**20-50**	**20-45**
Trimming Speed (km/h)	**43**	**43**	**40**
DULV	**yes**	**yes**	**no**

LINEPLAN: SILEX-L DATE: 24.04.01

Nr	To main line.			length (cm)	cutting (cm)	diamr (mm)	colour	material
a3	AI	102	-3,5	263	275	1	pink/yellow	dyneemaEdelrid
a5	AI	102,5	-3,5	38	50	1	pink/yellow	dyneemaEdelrid
a6	AI	111,5	-3,5	41	53	1	pink/yellow	dyneemaEdelrid
a8	AII	103	-3,5	53,5	65,5	1	pink/yellow	dyneemaEdelrid
a9	AII	102,5	-3,5	50	62	1	pink/yellow	dyneemaEdelrid
a11	AII	102,5	-3,5	45	57	1	pink/yellow	dyneemaEdelrid
a12	AII	110,5	-3,5	45	57	1	pink/yellow	dyneemaEdelrid
a14	AIII	99,5	-6	45,5	57,5	1	pink/yellow	dyneemaEdelrid
a15	AIII	98,5	-6	47,5	59,5	1	pink/yellow	dyneemaEdelrid
a17	AIII	95	-6	50,5	62,5	1	pink/yellow	dyneemaEdelrid
a18	AIII	100	-6	45	57	1	pink/yellow	dyneemaEdelrid
a20				45	57	1	pink/yellow	dyneemaEdelrid
a21				42,5	54,5	1	pink/yellow	dyneemaEdelrid
a23				38	50	1	pink/yellow	dyneemaEdelrid
a24				35,5	47,5	1	pink/yellow	dyneemaEdelrid
a25				32	44	1	pink/yellow	dyneemaEdelrid
a26				28,5	40,5	1	pink/yellow	dyneemaEdelrid
A2	AI			220	236	1,2	pink/yellow	COUSIN/TEC
A3	AII			260	272	1,1	pink/yellow	COUSIN/TEC
A4	AII			260	272	1,1	pink/yellow	COUSIN/TEC
A5				260	272	1,1	pink/yellow	COUSIN/TEC
A6				290	302	1,1	pink/yellow	COUSIN/TEC
A7				280	292	1,1	pink/yellow	COUSIN/TEC
A8				280	292	1,1	pink/yellow	COUSIN/TEC
A9				280	292	1,1	pink/yellow	COUSIN/TEC
AI				470	490	2,15	pink/yellow	COUSIN/TEC
AII				420	440	2,15	pink/yellow	COUSIN/TEC
AIII				380	400	2,15	pink/yellow	COUSIN/TEC
b3	BI	96	-2	253	265	1	blue	dyneemaEdelrid
b5	BI	96,5	-2	29	41	1	blue	dyneemaEdelrid
b6	BI	105,5	-2	32	44	1	blue	dyneemaEdelrid
b8	BII	98,5	-2	45,5	57,5	1	blue	dyneemaEdelrid
b9	BII	98,5	-2	42	54	1	blue	dyneemaEdelrid
b11	BII	98	-2	37	49	1	blue	dyneemaEdelrid
b12	BII	106,5	-2	37	49	1	blue	dyneemaEdelrid
b14	BIII	97	-1	38	50	1	blue	dyneemaEdelrid
b15	BIII	96	-1	40	52	1	blue	dyneemaEdelrid
b17	BIII	93	-1	48	60	1	blue	dyneemaEdelrid
b18	BIII	98,5	-1	43	55	1	blue	dyneemaEdelrid
b20				43,5	55,5	1	blue	dyneemaEdelrid
b21				41,5	53,5	1	blue	dyneemaEdelrid
b23				37,5	49,5	1	blue	dyneemaEdelrid
b24				35,5	47,5	1	blue	dyneemaEdelrid
b25				32,5	44,5	1	blue	dyneemaEdelrid
b26				29,5	41,5	1	blue	dyneemaEdelrid

B2				220	236	1,2	blue	COUSIN/TEC
B3				260	272	1,1	blue	COUSIN/TEC
B4				260	272	1,1	blue	COUSIN/TEC
B5				260	272	1,1	blue	COUSIN/TEC
B6				290	302	1,1	blue	COUSIN/TEC
B7				280	292	1,1	blue	COUSIN/TEC
B8				280	292	1,1	blue	COUSIN/TEC
B9				280	292	1,1	blue	COUSIN/TEC
BI				470	490	2,15	blue	COUSIN/TEC
BII				420	440	2,15	blue	COUSIN/TEC
BIII				380	400	2,15	blue	COUSIN/TEC
c3	CI	100,5	-0,9	258,5	270,5	1	yellow/pink	dyneemaEdelrid
c5	CI	101,5	-0,9	34,5	46,5	1	yellow/pink	dyneemaEdelrid
c6	CI	110,5	-0,9	37	49	1	yellow/pink	dyneemaEdelrid
c8	CII	103	-1,4	51	63	1	yellow/pink	dyneemaEdelrid
c9	CII	103	-1,4	47,5	59,5	1	yellow/pink	dyneemaEdelrid
c11	CII	102,5	-1,4	42,5	54,5	1	yellow/pink	dyneemaEdelrid
c12	CII	110,5	-1,4	42	54	1	yellow/pink	dyneemaEdelrid
c14	CIII	102	-4	43	55	1	yellow/pink	dyneemaEdelrid
c15	CIII	101	-4	45	57	1	yellow/pink	dyneemaEdelrid
c17	CIII	97,5	-4	53,5	65,5	1	yellow/pink	dyneemaEdelrid
c18				48,5	60,5	1	yellow/pink	dyneemaEdelrid
c20				48,5	60,5	1	yellow/pink	dyneemaEdelrid
c21				46	58	1	yellow/pink	dyneemaEdelrid
c23				42	54	1	yellow/pink	dyneemaEdelrid
c24				39,5	51,5	1	yellow/pink	dyneemaEdelrid
c25				36	48	1	yellow/pink	dyneemaEdelrid
c26				32,5	44,5	1	yellow/pink	dyneemaEdelrid
C2				220	232	1,1	yellow/pink	COUSIN/TEC
C3				260	272	1,1	yellow/pink	COUSIN/TEC
C4				260	272	1,1	yellow/pink	COUSIN/TEC
C5				260	272	1,1	yellow/pink	COUSIN/TEC
C6				290	302	1,1	yellow/pink	COUSIN/TEC
C7				280	292	1,1	yellow/pink	COUSIN/TEC
C8				280	292	1,1	yellow/pink	COUSIN/TEC
C9				280	292	1,1	yellow/pink	COUSIN/TEC
CI				470	490	1,7	yellow/pink	COUSIN/TEC
CII				420	440	1,7	yellow/pink	COUSIN/TEC
CIII				380	400	1,7	yellow/pink	COUSIN/TEC
d3				272	284	1	yellow/pink	dyneemaEdelrid
d5				48	60	1	yellow/pink	dyneemaEdelrid
d6				50,5	62,5	1	yellow/pink	dyneemaEdelrid
d8				64	76	1	yellow/pink	dyneemaEdelrid
d9				60,5	72,5	1	yellow/pink	dyneemaEdelrid
d11				54,5	66,5	1	yellow/pink	dyneemaEdelrid
d12				54,5	66,5	1	yellow/pink	dyneemaEdelrid
d14				54,5	66,5	1	yellow/pink	dyneemaEdelrid
d15				56,5	68,5	1	yellow/pink	dyneemaEdelrid

D2	220	232	1,1	yellow/pink	COUSIN/TEC
D3	260	272	1,1	yellow/pink	COUSIN/TEC
D4	260	272	1,1	yellow/pink	COUSIN/TEC
D5	260	272	1,1	yellow/pink	COUSIN/TEC
DI	470	490	1,7	yellow/pink	COUSIN/TEC
DII	420	440	1,7	yellow/pink	COUSIN/TEC
		930			
br5,5	240	252	1	pink/yellow	dyneemaEdelrid
br7,5	227	239	1	pink/yellow	dyneemaEdelrid
br9,5	220	232	1	pink/yellow	dyneemaEdelrid
br11,5	207	219	1	pink/yellow	dyneemaEdelrid
br13,5	202	214	1	pink/yellow	dyneemaEdelrid
br15,5	202	214	1	pink/yellow	dyneemaEdelrid
br17,5	190	202	1	pink/yellow	dyneemaEdelrid
br19,5	189	201	1	pink/yellow	dyneemaEdelrid
br21,5	191	203	1	pink/yellow	dyneemaEdelrid
br23,5	181	193	1	pink/yellow	dyneemaEdelrid
br25,5	174	186	1	pink/yellow	dyneemaEdelrid
Brint.1	350	362	1,1	orange dyneemaCousin	
Brint.2	350	362	1,1	orange dyneemaCousin	
Brint.3	340	352	1,1	orange dyneemaCousin	
Brint.4	330	342	1,1	orange dyneemaCousin	
Brmain	240	270	2,3	orange dyneemaCousin	
s1	60	72	1,1	yellow/pink	COUSIN/TEC
s2	60	72	1,1	yellow/pink	COUSIN/TEC
s3	61	73	1,1	yellow/pink	COUSIN/TEC
S	595	615	1,7	yellow/pink	COUSIN/TEC

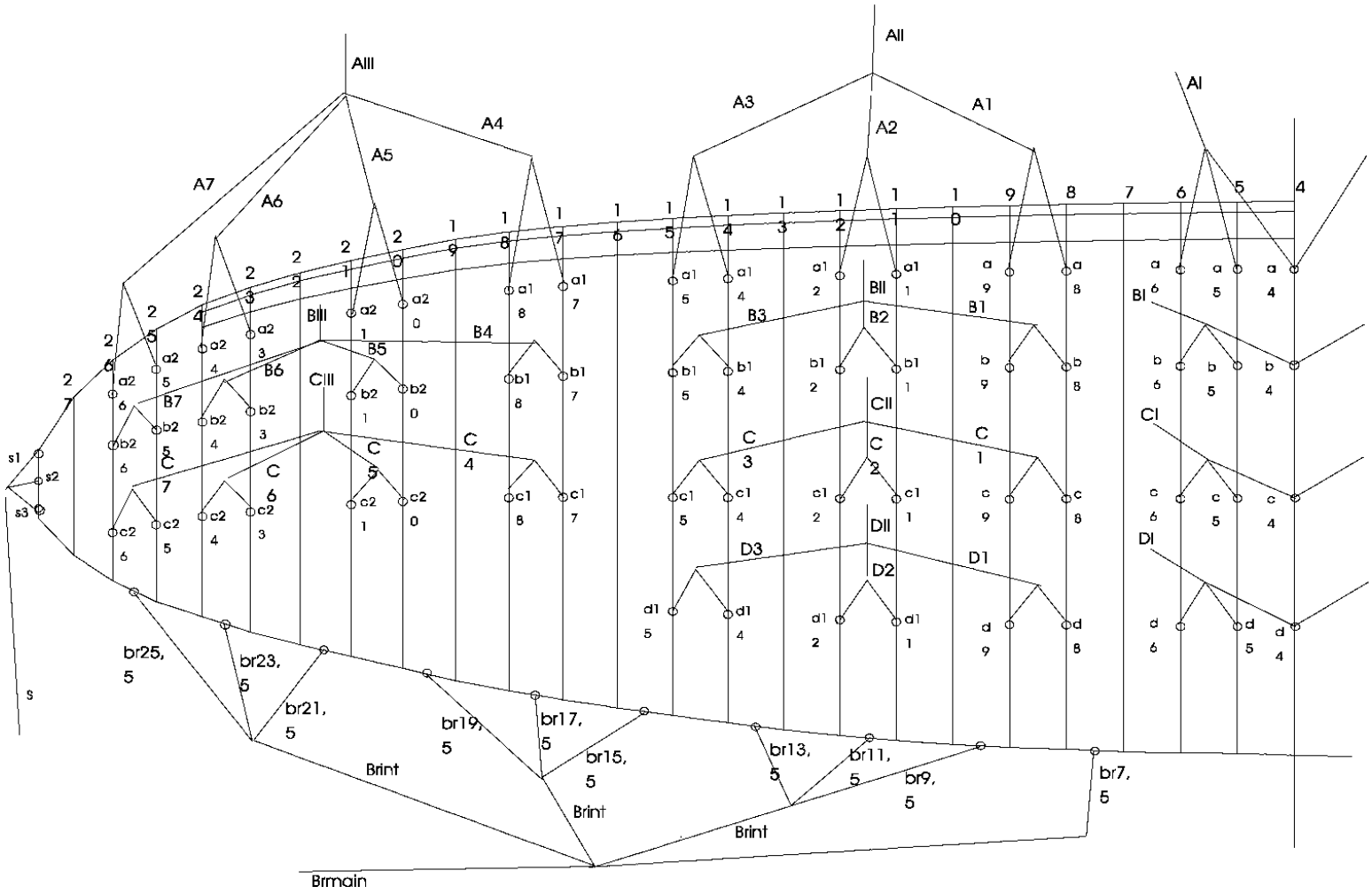
LINEPLAN: SILEX-M DATE: 10.01.99

Nr	To main line.			Length (cm)	cutting (cm)	diamr (mm)	colour	material
a4	AI	102	-3,5	112,5	124,5	1	pink/yellow	dyneemaEdelrid
a5	AI	102,5	-3,5	109	121	1	pink/yellow	dyneemaEdelrid
a6	AI	111,5	-3,5	111	123	1	pink/yellow	dyneemaEdelrid
a8	AII	103	-3,5	64	76	1	pink/yellow	dyneemaEdelrid
a9	AII	102,5	-3,5	59,5	71,5	1	pink/yellow	dyneemaEdelrid
a11	AII	102,5	-3,5	54,5	66,5	1	pink/yellow	dyneemaEdelrid
a12	AII	110,5	-3,5	53	65	1	pink/yellow	dyneemaEdelrid
a14	AIII	99,5	-6	55	67	1	pink/yellow	dyneemaEdelrid
a15	AIII	98,5	-6	57	69	1	pink/yellow	dyneemaEdelrid
a17	AIII	95	-6	63,5	75,5	1	pink/yellow	dyneemaEdelrid
a18	AIII	100	-6	58	70	1	pink/yellow	dyneemaEdelrid
a20				61	73	1	pink/yellow	dyneemaEdelrid
a21				59	71	1	pink/yellow	dyneemaEdelrid
a23				55	67	1	pink/yellow	dyneemaEdelrid
a24				51	63	1	pink/yellow	dyneemaEdelrid
a25				46,5	58,5	1	pink/yellow	dyneemaEdelrid
a26				42,5	54,5	1	pink/yellow	dyneemaEdelrid
A1	AII			260	276	1,2	pink/yellow	COUSIN/TEC
A2	AII			260	276	1,2	pink/yellow	COUSIN/TEC
A3				260	276	1,2	pink/yellow	COUSIN/TEC
A4				290	306	1,2	pink/yellow	COUSIN/TEC
A5				280	296	1,2	pink/yellow	COUSIN/TEC
A6				280	296	1,2	pink/yellow	COUSIN/TEC
A7				280	296	1,2	pink/yellow	COUSIN/TEC
AI				610	630	2,15	pink/yellow	COUSIN/TEC
AII				400	420	2,15	pink/yellow	COUSIN/TEC
AIII				360	380	2,15	pink/yellow	COUSIN/TEC
b4	BI	96	-2	103,5	115,5	1	blue/yellow	dyneemaEdelrid
b5	BI	96,5	-2	100	112	1	blue/yellow	dyneemaEdelrid
b6	BI	105,5	-2	102	114	1	blue/yellow	dyneemaEdelrid
b8	BII	98,5	-2	55	67	1	blue/yellow	dyneemaEdelrid
b9	BII	98,5	-2	51	63	1	blue/yellow	dyneemaEdelrid
b11	BII	98	-2	46	58	1	blue/yellow	dyneemaEdelrid
b12	BII	106,5	-2	45	57	1	blue/yellow	dyneemaEdelrid
b14	BIII	97	-1	47	59	1	blue/yellow	dyneemaEdelrid
b15	BIII	96	-1	50	62	1	blue/yellow	dyneemaEdelrid
b17	BIII	93	-1	58,5	70,5	1	blue/yellow	dyneemaEdelrid
b18	BIII	98,5	-1	55	67	1	blue/yellow	dyneemaEdelrid
b20				59	71	1	blue/yellow	dyneemaEdelrid
b21				57	69	1	blue/yellow	dyneemaEdelrid
b23				54	66	1	blue/yellow	dyneemaEdelrid
b24				51	63	1	blue/yellow	dyneemaEdelrid
b25				47	59	1	blue/yellow	dyneemaEdelrid
b26				43,5	55,5	1	blue/yellow	dyneemaEdelrid

B1				260	276	1,2	blue/yellow	COUSIN/TEC
B2				260	276	1,2	blue/yellow	COUSIN/TEC
B3				260	276	1,2	blue/yellow	COUSIN/TEC
B4				290	306	1,2	blue/yellow	COUSIN/TEC
B5				280	296	1,2	blue/yellow	COUSIN/TEC
B6				280	296	1,2	blue/yellow	COUSIN/TEC
B7				280	296	1,2	blue/yellow	COUSIN/TEC
BI				610	630	2,15	blue/yellow	COUSIN/TEC
BII				400	420	2,15	blue/yellow	COUSIN/TEC
BIII				360	380	2,15	blue/yellow	COUSIN/TEC
c4	CI	100,5	-0,9	108,5	120,5	1	yellow/pink	dyneemaEdelrid
c5	CI	101,5	-0,9	105	117	1	yellow/pink	dyneemaEdelrid
c6	CI	110,5	-0,9	107	119	1	yellow/pink	dyneemaEdelrid
c8	CII	103	-1,4	60	72	1	yellow/pink	dyneemaEdelrid
c9	CII	103	-1,4	56	68	1	yellow/pink	dyneemaEdelrid
c11	CII	102,5	-1,4	51	63	1	yellow/pink	dyneemaEdelrid
c12	CII	110,5	-1,4	50	62	1	yellow/pink	dyneemaEdelrid
c14	CIII	102	-4	52	64	1	yellow/pink	dyneemaEdelrid
c15	CIII	101	-4	55	67	1	yellow/pink	dyneemaEdelrid
c17	CIII	97,5	-4	63,5	75,5	1	yellow/pink	dyneemaEdelrid
c18				60	72	1	yellow/pink	dyneemaEdelrid
c20				64	76	1	yellow/pink	dyneemaEdelrid
c21				61,5	73,5	1	yellow/pink	dyneemaEdelrid
c23				58	70	1	yellow/pink	dyneemaEdelrid
c24				55	67	1	yellow/pink	dyneemaEdelrid
c25				50,5	62,5	1	yellow/pink	dyneemaEdelrid
c26				47,5	59,5	1	yellow/pink	dyneemaEdelrid
C1				260	272	1,1	yellow/pink	COUSIN/TEC
C2				260	272	1,1	yellow/pink	COUSIN/TEC
C3				260	272	1,1	yellow/pink	COUSIN/TEC
C4				290	302	1,1	yellow/pink	COUSIN/TEC
C5				280	292	1,1	yellow/pink	COUSIN/TEC
C6				280	292	1,1	yellow/pink	COUSIN/TEC
C7				280	292	1,1	yellow/pink	COUSIN/TEC
CI				610	630	1,7	yellow/pink	COUSIN/TEC
CII				400	420	1,7	yellow/pink	COUSIN/TEC
CIII				360	380	1,7	yellow/pink	COUSIN/TEC
d4				122,5	134,5	1	yellow/pink	dyneemaEdelrid
d5				119	131	1	yellow/pink	dyneemaEdelrid
d6				120,5	132,5	1	yellow/pink	dyneemaEdelrid
d8				73	85	1	yellow/pink	dyneemaEdelrid
d9				69	81	1	yellow/pink	dyneemaEdelrid
d11				63,5	75,5	1	yellow/pink	dyneemaEdelrid
d12				62	74	1	yellow/pink	dyneemaEdelrid
d14				64	76	1	yellow/pink	dyneemaEdelrid
d15				66,5	78,5	1	yellow/pink	dyneemaEdelrid

D1	260	272	1,1	yellow/pink	COUSIN/TEC
D2	260	272	1,1	yellow/pink	COUSIN/TEC
D3	260	272	1,1	yellow/pink	COUSIN/TEC
DI	610	630	1,7	yellow/pink	COUSIN/TEC
DII	400	420	1,7	yellow/pink	COUSIN/TEC
br7,5	585	597	1	pink/yellow	dyneemaEdelrid
br9,5	220	232	1	pink/yellow	dyneemaEdelrid
br11,5	207	219	1	pink/yellow	dyneemaEdelrid
br13,5	202	214	1	pink/yellow	dyneemaEdelrid
br15,5	202	214	1	pink/yellow	dyneemaEdelrid
br17,5	190	202	1	pink/yellow	dyneemaEdelrid
br19,5	189	201	1	pink/yellow	dyneemaEdelrid
br21,5	191	203	1	pink/yellow	dyneemaEdelrid
br23,5	181	193	1	pink/yellow	dyneemaEdelrid
br25,5	174	186	1	pink/yellow	dyneemaEdelrid
Brint.1	350	362	1,1	orange dyneemaCousin	
Brint.2	340	352	1,1	orange dyneemaCousin	
Brint.3	330	342	1,1	orange dyneemaCousin	
Brmain	215	260	2,3	orange dyneemaCousin	
s1	60	72	1,1	yellow/pink	COUSIN/TEC
s2	58	70	1,1	yellow/pink	COUSIN/TEC
s3	61	73	1,1	yellow/pink	COUSIN/TEC
S	590	610	1,7	yellow/pink	COUSIN/TEC

SILEX-M Lineconnection + Flarepositions 19.10.98



LINEPLAN: SILEX-S DATE: 04.09.98

Nr	To main line.			Length (cm)	cutting (cm)	diamr (mm)	colour	material
a4	AI	102	-3,5	87,5	99,5	1	pink/yellow	dyneemaEdelrid
a5	AI	102,5	-3,5	82,5	94,5	1	pink/yellow	dyneemaEdelrid
a6	AI	111,5	-3,5	84,5	96,5	1	pink/yellow	dyneemaEdelrid
a8	AII	103	-3,5	43,5	55,5	1	pink/yellow	dyneemaEdelrid
a9	AII	102,5	-3,5	41,5	53,5	1	pink/yellow	dyneemaEdelrid
a11	AII	102,5	-3,5	38,5	50,5	1	pink/yellow	dyneemaEdelrid
a12	AII	110,5	-3,5	40,5	52,5	1	pink/yellow	dyneemaEdelrid
a14	AIII	99,5	-6	39,5	51,5	1	pink/yellow	dyneemaEdelrid
a15	AIII	98,5	-6	41,5	53,5	1	pink/yellow	dyneemaEdelrid
a17	AIII	95	-6	49,5	61,5	1	pink/yellow	dyneemaEdelrid
a18	AIII	100	-6	46,5	58,5	1	pink/yellow	dyneemaEdelrid
a20				48,5	60,5	1	pink/yellow	dyneemaEdelrid
a21				47	59	1	pink/yellow	dyneemaEdelrid
a23				42	54	1	pink/yellow	dyneemaEdelrid
a24				38	50	1	pink/yellow	dyneemaEdelrid
a25				30,5	42,5	1	pink/yellow	dyneemaEdelrid
a26				23,5	35,5	1	pink/yellow	dyneemaEdelrid
A1	AII			260	276	1,2	pink/yellow	COUSIN/TEC
A2	AII			260	276	1,2	pink/yellow	COUSIN/TEC
A3				260	276	1,2	pink/yellow	COUSIN/TEC
A4				290	306	1,2	pink/yellow	COUSIN/TEC
A5				280	296	1,2	pink/yellow	COUSIN/TEC
A6				280	296	1,2	pink/yellow	COUSIN/TEC
A7				280	296	1,2	pink/yellow	COUSIN/TEC
AI				600	620	2,15	pink/yellow	COUSIN/TEC
AII				380	400	2,15	pink/yellow	COUSIN/TEC
AIII				328	348	2,15	pink/yellow	COUSIN/TEC
b4	BI	96	-2	79	91	1	blue/yellow	dyneemaEdelrid
b5	BI	96,5	-2	74	86	1	blue/yellow	dyneemaEdelrid
b6	BI	105,5	-2	76	88	1	blue/yellow	dyneemaEdelrid
b8	BII	98,5	-2	36,5	48,5	1	blue/yellow	dyneemaEdelrid
b9	BII	98,5	-2	34,5	46,5	1	blue/yellow	dyneemaEdelrid
b11	BII	98	-2	32	44	1	blue/yellow	dyneemaEdelrid
b12	BII	106,5	-2	34	46	1	blue/yellow	dyneemaEdelrid
b14	BIII	97	-1	33,5	45,5	1	blue/yellow	dyneemaEdelrid
b15	BIII	96	-1	35,5	47,5	1	blue/yellow	dyneemaEdelrid
b17	BIII	93	-1	50,5	62,5	1	blue/yellow	dyneemaEdelrid
b18	BIII	98,5	-1	47	59	1	blue/yellow	dyneemaEdelrid
b20				49,5	61,5	1	blue/yellow	dyneemaEdelrid
b21				48,5	60,5	1	blue/yellow	dyneemaEdelrid
b23				43,5	55,5	1	blue/yellow	dyneemaEdelrid
b24				39,5	51,5	1	blue/yellow	dyneemaEdelrid
b25				32,5	44,5	1	blue/yellow	dyneemaEdelrid
b26				26	38	1	blue/yellow	dyneemaEdelrid

B1				260	276	1,2	blue/yellow	COUSIN/TEC
B2				260	276	1,2	blue/yellow	COUSIN/TEC
B3				260	276	1,2	blue/yellow	COUSIN/TEC
B4				290	306	1,2	blue/yellow	COUSIN/TEC
B5				280	296	1,2	blue/yellow	COUSIN/TEC
B6				280	296	1,2	blue/yellow	COUSIN/TEC
B7				280	296	1,2	blue/yellow	COUSIN/TEC
BI				600	620	2,15	blue/yellow	COUSIN/TEC
BII				380	400	2,15	blue/yellow	COUSIN/TEC
BIII				328	348	2,15	blue/yellow	COUSIN/TEC
c4	CI	100,5	-0,9	84	96	1	yellow/pink	dyneemaEdelrid
c5	CI	101,5	-0,9	79	91	1	yellow/pink	dyneemaEdelrid
c6	CI	110,5	-0,9	81	93	1	yellow/pink	dyneemaEdelrid
c8	CII	103	-1,4	42,5	54,5	1	yellow/pink	dyneemaEdelrid
c9	CII	103	-1,4	40,5	52,5	1	yellow/pink	dyneemaEdelrid
c11	CII	102,5	-1,4	37,5	49,5	1	yellow/pink	dyneemaEdelrid
c12	CII	110,5	-1,4	39,5	51,5	1	yellow/pink	dyneemaEdelrid
c14	CIII	102	-4	38,5	50,5	1	yellow/pink	dyneemaEdelrid
c15	CIII	101	-4	40,5	52,5	1	yellow/pink	dyneemaEdelrid
c17	CIII	97,5	-4	55,5	67,5	1	yellow/pink	dyneemaEdelrid
c18				52,5	64,5	1	yellow/pink	dyneemaEdelrid
c20				55	67	1	yellow/pink	dyneemaEdelrid
c21				52,5	64,5	1	yellow/pink	dyneemaEdelrid
c23				48,5	60,5	1	yellow/pink	dyneemaEdelrid
c24				44,5	56,5	1	yellow/pink	dyneemaEdelrid
c25				35	47	1	yellow/pink	dyneemaEdelrid
c26				26,5	38,5	1	yellow/pink	dyneemaEdelrid
C1				260	272	1,1	yellow/pink	COUSIN/TEC
C2				260	272	1,1	yellow/pink	COUSIN/TEC
C3				260	272	1,1	yellow/pink	COUSIN/TEC
C4				290	302	1,1	yellow/pink	COUSIN/TEC
C5				280	292	1,1	yellow/pink	COUSIN/TEC
C6				280	292	1,1	yellow/pink	COUSIN/TEC
C7				280	292	1,1	yellow/pink	COUSIN/TEC
CI				600	620	1,7	yellow/pink	COUSIN/TEC
CII				380	400	1,7	yellow/pink	COUSIN/TEC
CIII				328	348	1,7	yellow/pink	COUSIN/TEC
d4				95	107	1	yellow/pink	dyneemaEdelrid
d5				90	102	1	yellow/pink	dyneemaEdelrid
d6				92	104	1	yellow/pink	dyneemaEdelrid
d8				55,5	67,5	1	yellow/pink	dyneemaEdelrid
d9				53,5	65,5	1	yellow/pink	dyneemaEdelrid
d11				50,5	62,5	1	yellow/pink	dyneemaEdelrid
d12				52	64	1	yellow/pink	dyneemaEdelrid
d14				51	63	1	yellow/pink	dyneemaEdelrid
d15				52	64	1	yellow/pink	dyneemaEdelrid

D1	260	272	1,1	yellow/pink	COUSIN/TEC
D2	260	272	1,1	yellow/pink	COUSIN/TEC
D3	260	272	1,1	yellow/pink	COUSIN/TEC
DI	600	620	1,7	yellow/pink	COUSIN/TEC
DII	380	400	1,7	yellow/pink	COUSIN/TEC
br7,5	575	587	1	pink/yellow	dyneemaEdelrid
br9,5	213	225	1	pink/yellow	dyneemaEdelrid
br11,5	199	211	1	pink/yellow	dyneemaEdelrid
br13,5	194	206	1	pink/yellow	dyneemaEdelrid
br15,5	196	208	1	pink/yellow	dyneemaEdelrid
br17,5	184	196	1	pink/yellow	dyneemaEdelrid
br19,5	179	191	1	pink/yellow	dyneemaEdelrid
br21,5	178	190	1	pink/yellow	dyneemaEdelrid
br23,5	164	176	1	pink/yellow	dyneemaEdelrid
br25,5	155	167	1	pink/yellow	dyneemaEdelrid
Brint.1	350	362	1,1	orange dyneemaCousin	
Brint.2	340	352	1,1	orange dyneemaCousin	
Brint.3	330	342	1,1	orange dyneemaCousin	
Brtop	89	109	2,3	orange dyneemaCousin	
Brmain	110	150	2,3	orange dyneemaCousin	
con	75	95	1,7	yellow/pink	COUSIN/TEC
s1	60	72	1,1	yellow/pink	COUSIN/TEC
s2	58	70	1,1	yellow/pink	COUSIN/TEC
s3	61	73	1,1	yellow/pink	COUSIN/TEC
S.top	435	455	1,7	yellow/pink	COUSIN/TEC
S.lower	100	120	1,7	yellow/pink	COUSIN/TEC

SILEX-S lineconnectionplan and cellnumbers 25.5.98