5. Enclosure ATEX

Hints and instructions regarding the use in hazardous areas.

5.1 Control and maintenance for utilize in hazardous areas

GROUP II 2GD c

5.2 Marking of coupling for the hazardous areas

Couplings for the use in hazardous areas are marked for the respectively permissible condition of use, as following indicated :

SIT Spa 20143 MILANO ITA
SITEX FL 42
TÜV 03 ATEX 2373X

CE0032 **II 2 GD c**
-20°C<Ta<+80°C A4

5.3 Checking of torsional backlash

Turn the hub in opposite direction to the direction of drive, pay **ATTENTION** to not generate an axial motion
Mark sleeve and hub position

Turn the hub in the direction of drive and measure the backlash ΔGmax (mm)
When reaching the max backlash the sleeve must be changed with another ATEX sleeve.

SIZE	42	48	48P	60	60P	80
ΔG_{max}	1	1	1	1.4	1.4	1.6

5.4 Values of wear

The wear control of the flexible spider must be effected after 3000 hours of work for the first time and than after 6 months starting from the utilize.
If you note an unconsiderable or no wear at the spider after this first inspection, the further inspection can be effected, in case of the same operating parameters, respectively after 6000 operating hours or after 18 months at the leatest.
If you note a considerable wear during the first inspection, we recommend you to change the spider with another ATEX spider, and please find out the causes according to the “Breakdowns” and eliminate it as far as possible
Turn the “B” hub in the direction of drive , pay attention do not generate an axial motion
Mark sleeve and hub
Turn the “B” hub in opposite direction of drive and measure the l backlash ΔGmax
When reaching the max backlash the sleeve must be changed with another ATEX sleeve

5.5 Starting

Before putting the coupling into operation, please check :
The tightness of the setscrews
The alignement
The right distance between hubs
All screw connection regarding the stipulated tightening torques dependent on the type of coupling

Guarantee the grounding

Fender for couplings in hazardous area
The couplings for hazardous area, must be provided with firm coverings (if possible, made from stainless steel) protecting the couplings against falling objects.
There can be regular openings in the coverings which may not exceed the following dimensions : side parts max 8 mm, top surface max 4 mm
The distance between the cover and the rotating parts must be at least 5 mm (up down) (right left)
The cover must be electrically conductive and be included in the admitted values of regulations.
The covers made in aluminium and NBR can be used between pump and electro motor if the magnesium part is below 7,5%.
The cover may be removed only after stopped the unit.
During operation, please pay attention to :
Strange running noises
Occurring vibrations

5.6 Conformity Declaration

CONFORMITY DECLARATION

Corresponding to EG Standard 94/9/CE dated 23 March 1994
And to legal regulations

The manufacturer SIT S.p.A. Via G. Watt n°15 20143 Milano
States that the :

SITEX FL coupling

Describe d in these mounting instructions are in accord of Standard 94/9/EGThey correspond of Standard EN 13463-1-5.

The couplings are certified by Conformity Declaration n° :

TÜV 03 ATEX 2373X- II 2 GD c

The production was certify by Enclosure IV from :

TÜV NORD CERT GmbH & Co KG
Am TÜV 1
30519 Hannover

Milan 15.01.04

Mr. Antonio Bonizzoni
Research & Development

Ing. Riccardo Scaglia
Legal Administrator

MANUALE N° ATEX/113.00

COUPLINGS

SITEX FL ATEX

MOUNTING INSTRUCTION

Sit S.p.A.
Via G. Watt, 15 – 20143 Milano
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info@sitspa.it

SITEX FL is flange coupling designed for direct connection Diesel engine and hydraulic pump.

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1.1 Description
Flange couplings designed for direct connection Diesel engine and hydraulic pump.

1.2 Operating
Made of polyammide reinforced fiberglass, they are used with full satisfaction in hydrostatic drives of harvesting machines, building machines.
Engage temperature –20°C +80°C

2.1. General Hints
Please read through these mounting instruction carefully before you set the coupling into operation. Please pay special attention to the safety instructions.
The **SITEX FL** coupling is approved for the use in hazardous areas .
When using the coupling in hazardous areas please observe the special hints and instructions regarding safety in enclosure **ATEX** point **5.**
The mounting instructions are part of your product, Please keep them carefully and close to the coupling.

2.2 Proper use
The coupling may only be used in accordance with the technical data.
Unauthorized modifications on the coupling design are not admissible. SIT do not take any warranty for resulting damages.
To further develop the product we reserve the right for technical modifications.
The SITEX FL described in here corresponds to the technical status at the time of printing of these mounting instructions.

2.3 Performances

SIZE	42	48	48P	60	60P	80
TKn	240	250	310	660	800	1300
TKmax	600	620	780	1650	1950	3100
TKw	75	75	88	200	240	380

(TKn= Nominal torque TKmax= Max torque TKw= Reverbile torque) = Nm

3. Storage
The coupling hubs are supplied in preserved condition and can be stored at a dry and roofed place.
It is very IMPORTANT that the storage rooms may not include any ozone-generating devices, like e.g. fluorescent light sources, mercury-vapour lamps or electrical high-voltage appliances.
The best relative air humidity is under 65%.
In case of favourable stock conditions, the coupling spider (elastomer) remain unchanged for up to 5 years.

4. Assembly
Basically the coupling is supplied in individual parts.
Before assembly the coupling has to be controlled for completeness.

4.1 Components
The standard SITEX FL coupling is supplied with 1 flange and 1 hub.
The clamp SITEX FL coupling is supplied with 1 flange,1 hub and 1 screw.

4.2 Hub production
It is IMPORTANT that for all materials, you do not exceeded in maximum permissible bore diameter.
If this value is not respected, the coupling can be crash and during rotation may cause serious danger.
Hub bores machined by the customer have to observe concentric running or axial running, respectively as indicated in the picture.

4.3 Screw position and size

SIZE	42	48	48P	60	60P	80
Screw	M8	M8	M8	M10	M10	M10
Dist.	10	10	10	20	20	20
Torque	10	10	10	17	17	17
"B"	4	4	4	4	4	6

Screw / Distance / B (mm) Torque Screw (Nm)

4.4 Hub assembly
Assemble the flange into the centering of the fly-wheel and tighten the relative screws with DIN 912 class 8.8 in according with thightening torque as indicated in the following table
Assemble the timing hub on the shaft and in clamp version to shut with these torques.
Move the pump with the hub until the flange and to shut the screw

4.5 Displacement of the Coupling
The displacements indicated in the table4.5.1 offer sufficient safety to compensate for environmental influences, like heat expansion or lowering of foundation.
In order to ensure a long lifetime of the coupling is necessary to pay a best attention to the alignment.
It is absolutely necessary that during the use in hazardous areas, the disaligned values indicated in table should be respected
If this vales are not respected, the coupling is considered damaged.

4.5.1.

SIZE	42	48	48P	60	60P	80
KA	2	2	1	2	1	2
KW	1	1	1	1	1	1
KR	0.2	0.2	0.2	0.3	0.2	0.3

KA = Axial Misalignment (+/- mm)
KW = Angular Misalignment (+/-°)
KR = Radial Misalignment (+/- mm)