





Blade damage and repair documentation



Blade Analysis System

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Blade Analysis System:

The solution "Blade Analysis System" is a holistic system for blade damage and repair documentation.

It is the system's goal to reduce the processing time of technicians in the field and back office employees. All necessary master data regarding the order is provided to the technicians, so they are able to generate the entire documentation on site.

Inaccurate or wrong inputs are reduced due to extensive verification mechanisms inside the application which helps to minimize inquiries made by the back office team. Customer reports are generated automatically using the selected data from the technician and configurable text templates.

Blade Analysis System offers a savings potential of 60% regarding the customer documentation. At the same time, processing times of several weeks can be optimized to less than a week.

Blade Analysis System stands for:

- Cost reduction due to a reduced personnel requirement
- Improvement of liquidity due to early invoicing
- Professionalization due to documentation that meets the customer's requirements

Furthermore, the simple digital input of data improves the motivation of field workers and back office employees alike. Service can focus on value-adding processes and less on documentation. Further optimization possibilities are a result of the connection with an ERP system for the transmission of master data and payroll relevant data.

With Blade Analysis System, you can react faster to the customer's requirements and create damage and repair documentations quicker and more professionally. Money may not grow on trees but it sure can be saved with an improved process.

With regards to the customer, an efficient damage analysis reduces down times but also maintenance efforts with damages that, according to analysis results, do not need repairs yet.



A quick overview of Blade Analysis System:

Offline input

- Browser-based (without an App)
- Complete offline operability incl. picture documentation
- Partial synchronization for back office assistance

16 - 0003		Data of Turbine		
1. COVER SHEET 2. GENERAL PART / LEGEND 2.1 Data of Turbine	Operator:	Beispielkunde 01	Visible:	Order
2.2 Data of Blades		WIG		
2.3 Data of Execution 2.4 Weather Conditions		1		• Mo
3. GENERAL INFORMATIONS	Manufacturer: Hub Height:	Nordex 95		- 1010
4. EXTERNAL DAMAGES				
4.1 Damage Summary + Categorization 4.2 Recommendations	Line Regulation:	Pitch		• Ch
4.3 Lightning Protection Measurement	Nominal Output (KW):	6000		
4.4 Damage Charts 4.5 Damage Details + Images	Year of foundation:	01.01.2015		• Au
5. INTERNAL DAMAGES	Operating Hours (h):	22		 A0
5.1 Damage Summary + Categorization 5.2 Recommendations	Produced Power (kWh):			
5.2 Recommendations 5.3 Damage Charts				
5.4 Damage Details + Images				
6. REPAIR DOCUMENTATION				Customer Portal
6.2 Temper Protocol				
			→	
Wind turBlade hisOrder his	story	ory		Control Number 17 Response A chargest Advances Areagest Advances Areagest C
16 - 0002 1. COVER SHEET 2. CENERAL PART / LECEND		Damage Detail	s + Images Voible:	Cu
2.1 Data of Furbine 2.2 Data of Blades		Damages No	de 000001	
2.3 Data of Execution 2.4 Weather Conditions	Damage No.1			
3. GENERAL INFORMATIONS A. EXTERNAL DAMAGES	Damage RV (Branched crack)	Count	Size 85 mm	
4.1 Damage Summary + Categorization 4.2 Recommendations	Location s (Structural)	Position	Radius 22.9 m	
4.3 Uptining Protection Heasurement 4.4 Damage Charts	Repair Step	Prediction (h)	Profile Depth	•
4.5 Damage Details + Images 5. INTERNAL DAMAGES	lami (laminated)	150	25 - 35 %	
5.1 Damage Summary + Categorization		Images - Damage docum	ntation	

Details + Images	lami (laminated)	150	25 - 35 %				
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		Images - Temporary Documentation		-			
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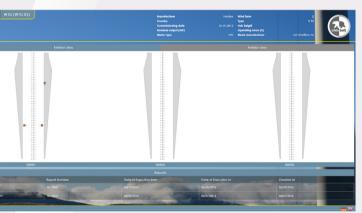
Automated schematic visualizations

- Blade types taken into account
- Damage positioning based on parameters
- Inner and outer presentation

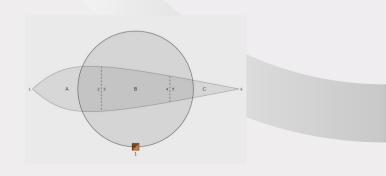




- management
- aintain team assignments
- nange teams for orders in progress
- itomated generation of reports



- stomer portal
- Release of selected reports for the portal
- Individual visualization of data according to the customer's Cl
- Authorization model for owners, operators and manufacturers









United to serve you

UMa Soft sets great value upon function-oriented software that offers the customer a maximum degree of influence on individual user guidance while holding on to standards. Easy to understand tutorials and the respective licences enable the customer to expand solutions independently and to adapt them to their individual needs.

3Txpert has the Blade Analysis System experience as well as the know-how of the components CrossLoom and Work & Report, on which the system is based. Due to the additional broad process knowledge, 3Txpert is predestined to be the implementation partner and to ideally realise individual customer wishes in a Blade Analysis System Project.



3Txpert is the development partner of UMa Soft and strongly involved in the development and further enhancements of Blade Analysis System.

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