EMPOWERING TECHNOLOGIES

STRESSVOYAGER®

ULTRASONIC NEEDLE FORMING & STRAIGHTENING

a SONATS solution

PEEN FORMING ACTIVATED WITH STRESSONIC® TECHNOLOGY

Mechanical needle peening and peen forming operations mean finishing the shape of a component or a metal structure to achieve the required shape. It is an alternative to tradional sheet metalwork methods which helps to reduce the risk of muskuloskeletal disorders.

Using our STRESSONIC® technology, the impactors located in the treatment head pick up velocity in contact with the sonotrode (vibrating component) and impact the metal to be treated. The difference in between the surface and the core of the metal causes a change in the plate curvature.

PROCESS KEY ASSET

The peen forming process uses captive medias in an end-piece, they are called impactors. **The mewdia control allows to increase the treatment performance and simplicity in implementation.**

STRESSVOYAGER® - PEEN FORMING PORTATIVE SYSTEM

Accessories

To meet your applications and expectations, we provides differents treatment heads and end-pieces depending on accessibility conditions and part configurations.

Treatment heads				
	PR10	**PR13**	**PR16**	**PR17**
End-pieces				
	ER18-02 *End-piece from 13 to 50 impactors from Ø 2 to 4 mm*	**ER23-02** *End-piece from 13 to 50 impactors from Ø 2 to 3 mm*	**ER25-02** *End-piece from 47 to 30 impactors from Ø 2 to 3 mm*	**ER29-02** *End-piece from 45 to 29 impactors from Ø 2 to 3 mm*

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ULTRASONIC NEEDLE FORMING

QUALIFICATIONS

We are proud for having our equipement qualified with success by major OEMs : AIRBUS et DASSAULT.

- **SAE/AMS 2588** « Ultrasonically Activated Needle Peen Forming »
- **AIRBUS AIPI 03-10-001** « Rectification of metallic materials by shot peening »
- **AIRBUS AIPS 03-10-011** « Hard Metal Forming – General Requirements »
- **DASSAULT DGQT 4 2 0152** « Aluminium alloy part finish mechanically machined »
- **DASSAULT DGQT0 8 3 0181** « Ultrasonically activated forming »

PRINCIPAUX AVANTAGES

Easy to implement
Ergonomic design for a comfortable use
Control of peening intensity

Performances

- Quick and efficient process
- Treatment of aluminium parts (from 2 to 60mm thickness) or on other metals (titanium, steel...)

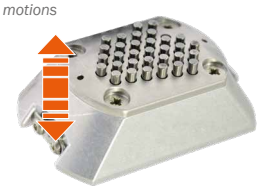
Functionnalities

- Peen forming of the part directly on the jig
- Fast interchangeable and adaptable end-pieces
- Several disegns of peeening heads are available for the optimal tratment of hardly accesses geometries

Simplicity

- Minimum training required
- Touchscreen (user friendly interface)
- handheld tool, compact, light and durable

Peen forming effect on aluminium parts. Progressive bending when peening top surface.



Peening head end-piece

SPECIFICATIONS

Generator	Technology	Digital
	Frequency	20kHz
Input Voltage	230V 115/230V 200/230V	50/60Hz
Maximum Power	1000W	
Nominal Standard Power	200W	
Compressed Air	Pressure	6bar (90psi)
	Flow Rate	250-300 l/min (8.8-10.6 cfm)
Dimensions (LxWxH)	Central unit	300x400x675 mm
	Peening head	265-283x100x80 mm (10.4-11.1x3.9x3.1 in.)
Weight	Central Unit	24 à 28 kg (52.9 à 61.7 lbs) depending on the Power Supply version
	Peening head (PR10)	3 kg (6.61 lbs) - without umbilical
HMI	Touchscreen with ergonomic coloured interface	

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