



SPK[★]

AERO

RANGE DEDICATED
TO THE FINISHING OF
MACHINED AERONAUTICAL
PARTS

DEBURRING
EDGE ROUNDING
DRY DEGREASING

Registered Aeronautical Process & Respectful of the Environment

SPK[★]
SOLUTIONS

by SPALECK INDUSTRIES

PRESENTATION

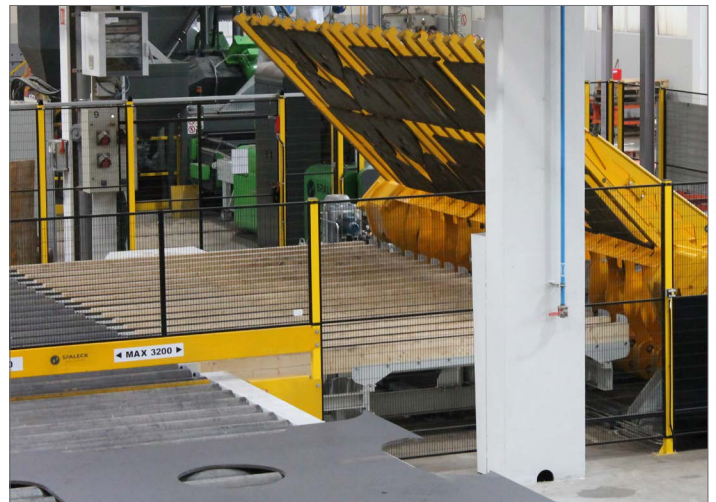
BUILDER AND INTEGRATOR OF FINISHING EQUIPMENT

Historically manufacturer of deburring tumblers, we have developed global finishing solutions. Nowadays, our know-how, expertise and our skills extend to the supply of deburring machines, of small and high capacity, until the design and installation of a complete finishing line.

In each project, we are the provider of technical information which allows to tackle finishing matters as a whole :

- The engineering of the technical mean (of our concept or in integration).
- Installation of the mean in the production flow.
- Profitability of investment.
- Energy saving.
- QHSE issues (quality, hygiene, security and environment).

Descaling, degreasing, trimming, deburring, deoxidation, edge rounding, stripping by tumbling or brushing represent our know-how field of expertise.



MACHINES, EQUIPMENTS AND SERVICES

SPK

SOLUTIONS refers to the set of our skills. A programm made of five leading brands specially adapted to needs of the ordering customers in a variety of sectors.

SPK AERO

Range dedicated to the finishing of machined aeronautical parts.

SPK FINITION

Range dedicated to parts of metalwork, boilermaking and sheetmetal work.

SPK INNOVATION

Engineering services and Research & Development.

SPK EQUIPEMENTS

Peripheral equipments.

SPK SERVICES

After-sale services, spare parts, consumables, training.

FIELDS OF ACTIVITY

SPK SOLUTIONS, via its different range of machines meets the requirements of technicality, and the need of profitability and robustness. We put our skills and knowledge particularly at the disposal of:

- AERONAUTICS SECTOR
- METALWORK
- MECHANICS
- PRECISION MACHINING
- MACHINERY
- STRUCTURAL STEELWORK
- INDUSTRIAL METALWORKING
- MECHANIZED WELDING WORK
- LOCKSMITH WORK

We are also here to help you for projects in other fields.

KNOW-HOW

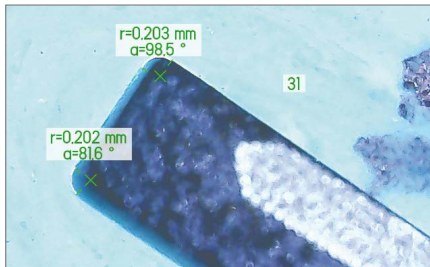
SPK SOLUTIONS offers global and complete finishing solutions adapted to its customers. The company relies on a multidisciplinary team of experts. We focus on our core business, that means conception, assembling and services. Our flexible organization allows to set up external qualified resources.

CONSULTING	CONCEPTION	MANUFACTURING	ASSEMBLING	TECHNICAL SUPPORT
<ul style="list-style-type: none"> Technical trials Process and setting up definition Cost-benefit studies ROI calculation Finance leasing 	<ul style="list-style-type: none"> Mechanical design Automatism conception External engineering office 	<ul style="list-style-type: none"> Purchasing and subcontracting from a reliable and organized network (regional expertise) Manufacturing site partner 	<ul style="list-style-type: none"> Qualified workers team Assembling procedure in case of subcontracting Training of production workers 	<ul style="list-style-type: none"> Technical support via preventive maintenance contracts Intervention in case of remedial maintenance Remote intervention

MEANS OF PRODUCTION

We have recently integrated new premises in order to have optimum manufacturing conditions and also to install a new testing and sub-contracting center for our customers.

Thus, an area of 1400 square meters is available to design, to test, to assembly an.



REFERENCES

In addition to being respectful of the environment, our range of products has been granted by the trust of manufacturers and industrial sub-contractors such as:

AIRBUS - SNCF - STELIA - LIEBHERR - JOHN DEERE
LATECOERE - CATERPILLAR - AIR LIQUIDE

IDENTIFICATION OF THE NEED

SHELVING

Edge rounding

DEBURRING

DEGREASING

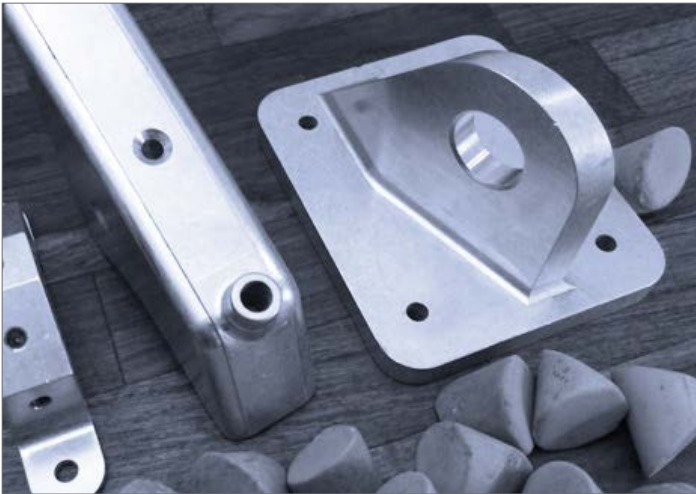
AIM

- To ensure a better adhesiveness of the protections of the narrow edges of the parts.
- To prevent the initiation of cracks on the elements subject to fatigue stress.
- To reduce the risks of injuries in the course of manipulation.
- To improve the contact between the faces of the parts to be assembled.
- To ensure a better outflow of the fluids.

/ Source ADET 0031

TREATED ELEMENTS

With the SPIC® process and the SPK AERO range, we approach **economically** and **ecologically** the finishing of the following components:



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1. Machined aeronautical parts
2. Routed aeronautical parts
3. Aeronautical and long lengths profiles

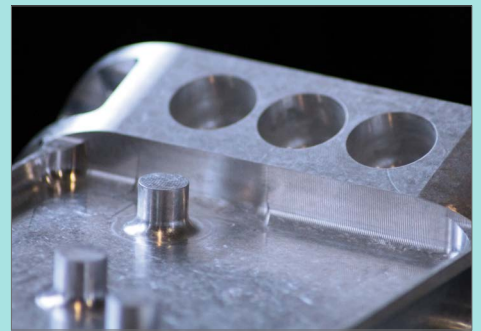
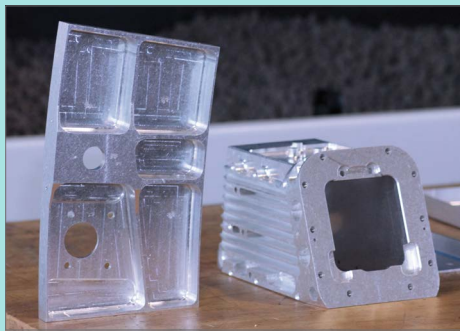
SPIC® PROCESS

THE SPIC® PROCESS, AN APPROVED DRY TUMBLING METHOD

The finishing in aeronautics is regulated by norms and by qualifications. As a Qualified process, the tumbling provides a new effective solution, which is characteristic of finishing problems. Deburring, degreasing and a more rapid radiating, more economic and above all cleaner.

THE SPIC® PROCESS, A SIMPLE PROCESS

The parts, which are put down on SPIC® abrasives, are stired in a rotating tank. The treatment lasts approximately twenty minutes. During this cycle air is soaked up into the tank, which allows the evacuation of formed dust. The addition of corn cob, a product being perfectly environment friendly, provides the degreasing as well as the absorption of fine dust.



THE DRY TREATMENT IN A ROTATING TANK

- Process being compliant with ADET 0031 and AIPI 03-11-003
- Ideal tool for the machined and cut routed out parts
- Environmental friendliness
- Savings

THE SPIC® PROCESS, AN ADAPTED PROCESS

Specially elaborated for the dry treatment, the SPIC® media benefits from AIRBUS certification issued by STELIA (ADET 0031 and AIPI 03 11 003).

Its rate of wear and tear is extremely weak (2.25% per 24 hours).

Moreover, the characteristics of the machines are adapted to the parts dedicated to aeronautics thanks in particular to the following pieces of equipment:

- Coating of the tank being resistant to hydrocarbons and vulcanized in order to avoid any contact with aluminium/ steel).
- Suction on a side of the tank with a downgrading of the abrasives and with recycling of the corn cob.

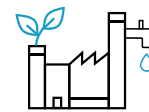
ADVANTAGES LINKED WITH TECHNOLOGY



TECHNICALITY AND
COMPLIANCE

SIMULTANEOUS TREATMENTS	<ul style="list-style-type: none"> • The degreasing and radiating are made simultaneously in the machine.
NO RISK OF CORROSION	<ul style="list-style-type: none"> • The parts are not humidified, thus they are dry when they exit the processing.
CONFORMITY	<ul style="list-style-type: none"> • Compliant radius. • Absence of masking of cracks. • Not deteriorated cladding. • Compliant Ra.
ABSENCE OF VIBRATION	<ul style="list-style-type: none"> • The machine may be positioned directly next to the CNC-machines.
SIMPLE MAINTENANCE	<ul style="list-style-type: none"> • No particular maintenance is required both at the material level and at the operating level.
REMOTE MAINTENANCE	<ul style="list-style-type: none"> • The maintenance and updating operations may be done remotely thanks to the autonomous connection.
COSMETIC	<ul style="list-style-type: none"> • The appearance of the parts is homogeneous.

ADVANTAGES LINKED WITH THE ENVIRONMENT



CONTROL OF
IMPACT ON THE
ENVIRONMENT

TREATMENT WITHOUT CHEMICAL PRODUCTS	<ul style="list-style-type: none"> • The cleaning of the parts, which is made by means of stirring of the media and of the corn cob avoids any resorting to chemical products.
DRY TREATMENT WITHOUT LIQUID DISCHARGE	<ul style="list-style-type: none"> • The method of treatment is effective in the dry, the management of sludge /mud and of waste water does not constitute an issue anymore.
RECYCLING	<ul style="list-style-type: none"> • The recycling of the corn cob is automatic and estimable according to the necessary degreasing.
A SUCTION OF DUST	<ul style="list-style-type: none"> • The suction of dust is done directly in the processing tank, they are filtered and recovered in a barrel or in a waterproof bag.

↘ ADVANTAGES LINKED WITH OCCUPATIONAL HEALTH



**SAFETY
AT WORK**

TREATMENT WITHOUT CHEMICAL PRODUCTS

- The cleaning of the parts is being made by stirring, the resorting to chemicals is unnecessary.

SOUND INSULATION

- The treatment tank is sound insulated thanks to a rubber coating. According to reading, the sound level measured at the distance of 1 meter does not exceed 75 dB.

SUPPORT AND GUIDANCE FOR THE USER

- Indication on the display of the consumption of abrasives, which warns the operator of the load of necessary chips.

EASY-TO-USE OPERATION

- The use does not require any special training.

MAINTENANCE AND ERGONOMICS

- The parts are easily accessible after processing.
- The used abrasives are downgraded automatically, they may be discharged by the force of gravity into the boxes placed under the tank.

↘ ECONOMIC ADVANTAGES



**RETURN ON
INVESTMENT**

RAPIDITY OF THE TREATMENT

- The conformity is obtained with a twenty minute cycle.

CONSUMED QUANTITY OF ENERGY

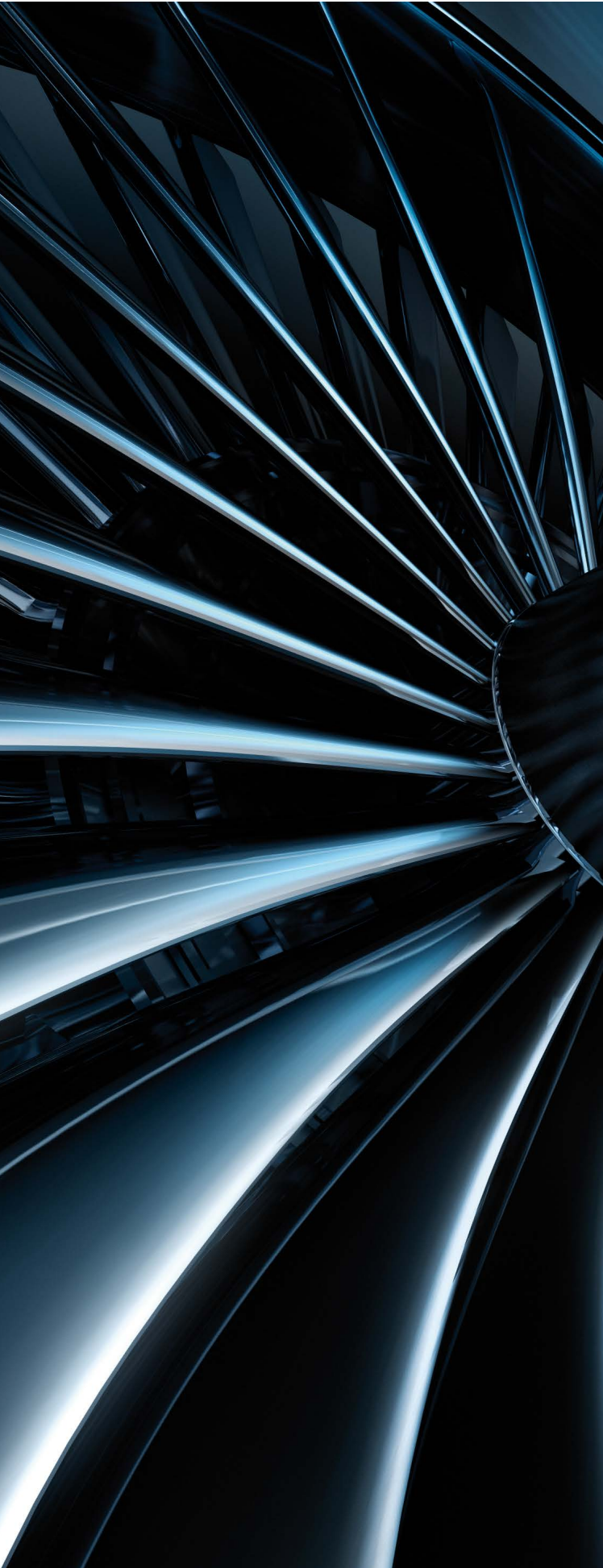
- The installed electrical power does not exceed 9 kW for the big machines.

LOW OPERATING EXPENSES

- The rate of wear and tear amounts to 2.25% for 24 hours of processing, the quantity of dry rubbish is weak.

SPACE GAIN

- The machine is compact and silent and it may be integrated directly in the workshop.



A MODEL

WITH MANUAL DOOR

XA MODELS

WITH AUTOMATIC DOOR

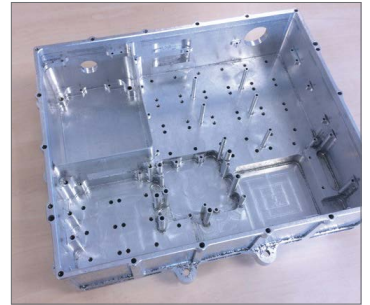
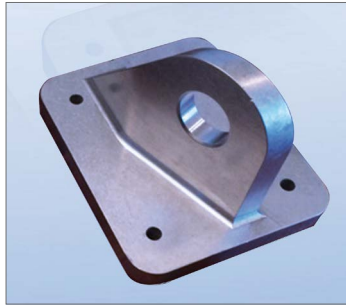
XAL MODELS

INTENDED FOR LONG LENGTHS AND
IMPORTANT PRODUCTION

A MODEL

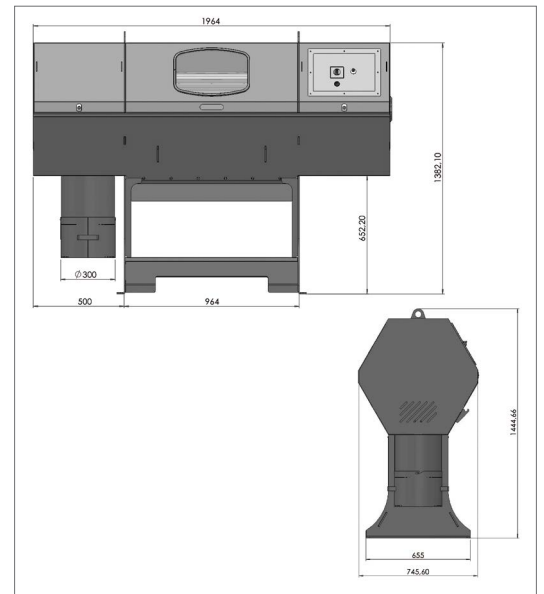
PRESENTATION

The deburring tumbler A100 is a compact machine and it is easy to use. It is equipped with a 230 V line connection and with a suction system, the deburring tumbler A100 has all the characteristics of a production tool.



TECHNICAL DATAS

MODEL	A 100
Capacity	100 liters
Tank	360 x 790 mm
Size of the parts	200 x 200 x 700 mm
Parts unit weight	5 Kg
Total load	100 Kg
Rubber thickness	12 mm
Power	2 kW - 1 x 230 V
Opening / closing of the tank	Manual
Loading	Manual
Unloading	Manual or by means of gravity in boxes



OPTIONS



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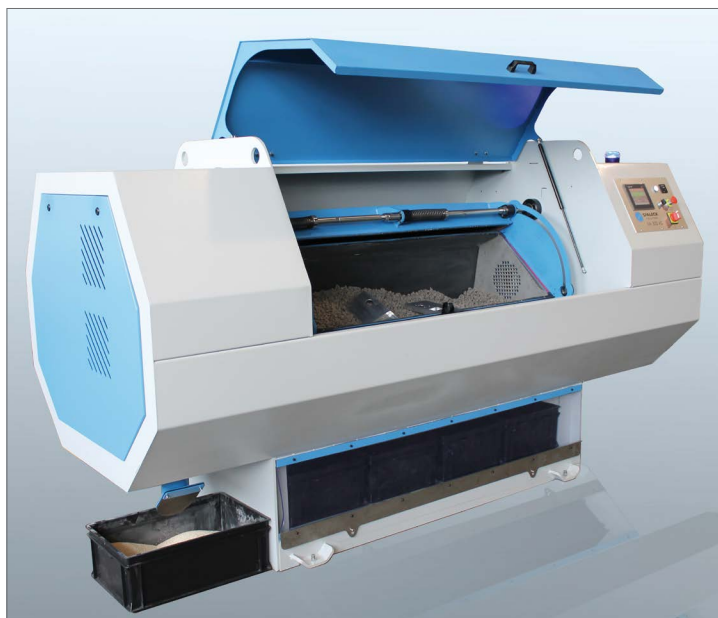
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1. Assembly on wheels
2. Detachable partitions in order to compartmentalize the tank
3. Partition door between the abrasives and the parts

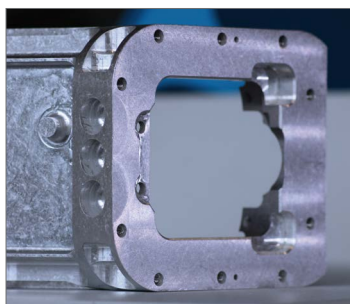
XA MODELS

PRESENTATION

Adapted for pieces of up to 1350 mm, this deburring tumbler allows to treat a large spectrum of parts. It is perfectly suitable for subcontracting markets, where the versatility of the machines is crucial in order to absorb the specific orders.



1



2



1. XA 300

2. XA 100

TECHNICAL DATAS

MODELS		XA 100	XA 150	XA 300
Capacity	L	100	150	300
Tank	Mm	360 x 750	360 x 1200	500 x 1400
Size of the parts	Mm	200 x 200 x 700	200 x 200 x 1100	350 x 350 x 1350
Parts unit weight	Kg	15	15	15
Total load	Kg	100	150	300
Rubber thickness	Mm	12	12	15
Power	kW	2	3	5
Power supply	V	1 x 230 V	1 x 230 V	3 x 400 V
Opening/Closing of the tank		Automatic		
Loading		Manual		
Unloading		Manual or by means of gravity in boxes		
Space required	Mm	1970 x 790 x h 1360	2430 x 790 x h 1360	3230 x 850 x h 1600
Weight	Kg	600	850	1570
Available option		Removable partition in order to compartmentalize the tank		

XAL MODELS

PRESENTATION

Adapted for parts of up to 6200 mm, the range XAL is specifically adopted to the sections, stiffeners, seat guide rails. Placed directly in the tumbler in machining series, many parts may be treated simultaneously without being altered.



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4



1. XAL 6500

2. Parts loading and unloading ergonomics

3. XAL 2500

4. Complete workstation configuration (machining and finishing)

TECHNICAL DATAS

MODELS		XAL 2500	XAL 4500	XAL 6500
Capacity	L	2500	4500	6500
Tank	Mm	500 x 2500	500 x 4500	500 x 6500
Size of the parts	Mm	350 x 2200	350 x 4200	350 x 6200
Parts unit weight	Kg	50	75	100
Total load	Kg	300	400	500
Rubber thickness	Mm	20	20	20
Power	kW	9	12	12
Power supply	V	3 x 400 V	3 x 400 V	3 x 400 V
Opening/Closing of the tank		Automatic		
Loading		Manual		
Unloading		Manual or by means of gravity in boxes		
Space required	Mm	4520 x 1150 x h 1600	6450 x 1150 x h 1600	8460 x 1150 x h 1600
Weight	Kg	3000	4500	6000
Available option		Removable partition in order to compartmentalize the tank		



SPALECK

INDUSTRIES

1070 Allée Henri HUGONIOT
F - 25600 BROGNARD

Tel. +33 (0)3 81 47 80 50
contact@spaleck-industries.fr

www.spk-solutions.fr

