



# Price List 2013

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### **Official Distributor:**

Comex International s.r.o  
Za Mototechnou 971, 15500 Praha 5  
Czech Republic  
Tel.: 420 2 516 23395  
Fax.: 420 2 516 19993  
E-mail: comex@volny.cz





**Peening Accessories is an Official Agent for:**



for flaps, mandrels, magnetic holders, tapes



for sieves, sieve shakers



for high end motors for flap peening



for Blast Media Additive to Skip Washing Stage



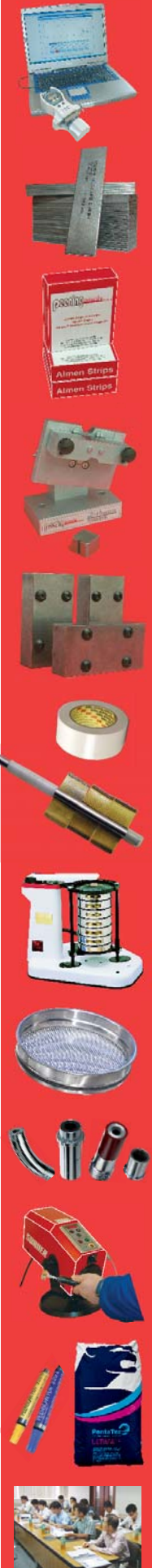
for shot and flap peening training, consulting, books, magazines



for peenscan pens



for TETRABOR blasting and peening nozzles





### INDUSTRIAL Almen Gage

- for A, N, C & Aluminium Strips
- digital display (0.0001", 0.001mm resolution), SPC data port
- water resistant Swiss made digital indicator
- convenient replacement of battery (no data lost)
- support balls for strip made of ceramic (basically no wear)
- mechanical positioning system for strip
- no magnets which attract metallic residues, shot, etc.
- meets AMS-S-13165, SAE J442, AMS 2430 and AMS 2432
- separate curved calibration block included
- 1 year warranty

### INDUSTRIAL PLUS Almen Gage has in addition:

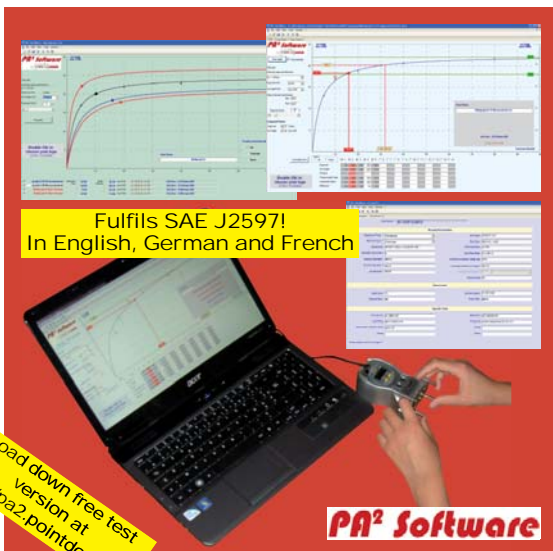
- protective nickel plated/sand blasted casing for digital indicator

### HP Almen Gage (High Precision) has in addition:

- automated "ZERO" setting by turning gage ON
- visual "ZERO" setting control before every measurement
- protective nickel plated/sand blasted casing for digital indicator

Type	Ref. No.:	€
INDUSTRIAL Almen Gage	800 000	€ 996
INDUSTRIAL PLUS Almen Gage	800 150	€ 1120
HP (High Precision) Almen Gage	700 000	€ 1495
USB cable to connect gage to computer	700 808	€ 169

Shipping weight:  
1.8 kg/pc



### Almen Saturation Curve Software PA<sup>2</sup>

- Displays up to 6 Almen curves on the same graphic chart
- Display the different Almen curves for several Almen strip holders on the same component
- Editable datasheet
- Compare the effect of different peening parameters sets
- Versatile arc height input with a USB connection to the Almen gage
- Possibility to input data in any order and sort after wise
- Prediction and display of arc height for any exposure value
- Direct input and integration of the pre-bow
- Displaying automatic error messages
- Fulfils SAE J2597 specification for computer generated shot peening saturation curves

Type	Ref. No.:	€
Almen Saturation Curve Software PA <sup>2</sup>	100 140	€ 1380
2nd Licence of PA <sup>2</sup>	100 350	€ 880

no shipment, only download version



### TETRABOR Blasting and Peening Nozzles

For price and technical info, please request detailed catalogue at info@peening.ch



### Adhesive Masking Tapes

Abrasive Resistant for Peening & Blasting



Ref. No.	Width	€ / pc	Weight	Ref. No.	Width	€ / pc	Weight
640 501	6 mm	€ 8.57 (*)	48 g	640 504	25.4 mm	€ 20.73 (*)	200 g
640 502	12.7 mm	€ 12.29 (*)	96 g	640 505	50.8 mm	€ 42.19 (*)	400 g
640 503	19.1 mm	€ 16.52 (*)	152 g				

(\*): Minimum Order Size: 12 Tapes



**Almen Strips (A, N, C type)**

- directly from the manufacturer
- corrosion protection
- packing in resistant 50 Pcs carton boxes or 500 Pcs boxes (depends on requirement & quality)
- strips are vacuum packed for shipment
- no mechanical deformation after heat treatment to meet flatness requirements
- tighter hardness tolerances for Aero strips, HRC 45-48
- strips to any specification provided
- with certificate of compliance



Peening Accessories GmbH  
 Sales Office in Switzerland  
 Tel +41.44.8312644, Fax +41.44.8312645  
 info@peening.ch, www.peening.ch

**New: PLUS Quality**

- each strip is LASER measured for flatness
- flatness of both sides printed on each strip
- each strip comes with a tracking no.

Type	Minimum Order	Ref. No.:	€/ pcs
A Strip AERO PLUS ±0.013mm, HRC 45-48, SAE J442, SAE AMS 2430, SAE AMS 2432	100 (50/box)	200 101	€ 1.11
A Strip INDUSTRIAL PLUS ±0.025mm, HRC 44-50, SAE AMS 2430, SAE J442	100 (50/box)	200 202	€ 0.74
A Strip INDUSTRIAL PLUS BULK ±0.025mm, HRC 44-50, SAE AMS 2430, SAE J442	4'000 (500/box)	200 303	€ 0.60
N Strip AERO PLUS ±0.013mm, HRC 45-48, SAE J442, SAE AMS 2430, SAE AMS 2432	100 (50/box)	300 101	€ 1.31
N Strip INDUSTRIAL PLUS ±0.025mm, HRC 44-50, SAE AMS 2430, SAE J442	100 (50/box)	300 202	€ 0.86
N Strip INDUSTRIAL PLUS BULK ±0.025mm, HRC 44-50, SAE AMS 2430, SAE J442	4'000 (500/box)	300 303	€ 0.69
C Strip AERO PLUS ±0.013mm, HRC 45-48, SAE J442, SAE AMS 2430, SAE AMS 2432	50 (25/box)	400 101	€ 1.90
C Strip INDUSTRIAL PLUS ±0.038mm, HRC 44-50, SAE AMS 2430, SAE J442	50 (25/box)	400 202	€ 1.30
C Strip INDUSTRIAL PLUS BULK ±0.038mm, HRC 44-50, SAE AMS 2430, SAE J442	2'000 (250/box)	400 303	€ 0.95

	Dimension	Shipping Weight
A Strip	L=76.1mm W=18.95mm D=1.295mm	1000 Pcs 15.3 kg
N Strip	L=76.1mm W=18.95mm D=0.785mm	1000 Pcs 9.5 kg
C Strip	L=76.1mm W=18.95mm D=2.385mm	1000 Pcs 28.5 kg



**Almen Strip Holder for A, N and C strips**

- directly from the original manufacturer
- according to SAE J442 (industry standard)
- hardened to Rockwell C 58 or higher
- with screw & nut or threaded type
- corrosion protection
- screws for strip attachment included
- dimensions: L x W x D = 76.4 x 38 x 19mm (3" x 1.5" x 0.75")

Almen Test Strip Holder (SAE J442) Type: Threaded, Ref. No.: 500-101
€ 56/pc
Shipped with 4 Pcs of M5 screws, which thread into tapped holes to secure the Almen strip in place. Replacement Screws: Ref. No.: 500-112, 50 Pcs for €10

Almen Test Strip Holder (SAE J442) Type: Non Threaded Ref. No.: 500-102
€ 56/pc
Shipped with 4 Pcs of M5 screws that are installed through a clearance hole in the holder to secure the strip in place. Includes 4 Pcs M5 nuts to be installed from the bottom side of the holder. Operator must have access to bottom of holder for installation of nuts. Replacement Screws: Ref. No.: 600-212, 50 Pcs for €10

Shipping weight for both types: 0.45 kg/pc

Shipping weight for both Replacement Screws: 0.125 kg / 50pc



Type	Ref. No.:	€
Almen Strip Holder for Internal Peening (IN-19), excluding Replacement Blocks	900 000	€ 935

Shipping weight: 4.20 kg

Type	Ref. No.:	€
Replacement Block, available in Sizes: Ø2.5mm, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15, 15.5, 16, 16.5, 17, 17.5, 18, 18.5, Ø19mm	900-Ø E.g. Block Ø2.5mm = 900-025	€ 86/pc

**Almen Strip Holder for Internal Peening (IN-19)**

- eliminates the need for costly and time-consuming custom designed Almen strip holders
- free standing device with adjustable angle
- represents actual intensity accurately
- more than 30 hardened replacement blocks that represent the different hole diameters up to 19mm
- U.S. Patent No. 6,502,449 B1

## Accessories for Flap Peening

Official Agent of



Ref. No.	Flap Size	€ / pcs
600 100	9/16 x 1	€ 28.04
600 101	9/16 x 1 1/4	€ 28.04
600 102	1 x 2	€ 40.85



Ref. No.	Flap Size	€ / pcs
600 200	9/16 x 1 (*)	€ 24.50
600 201	9/16 x 1 1/4 (*)	€ 24.50
600 202	1 x 2 (**)	€ 51.09




shipping weight: 15 g/flap  
Flap Size 9/16 x 1 for 1/2"-3/4" hole Ø  
Flap Size 9/16 x 1 1/4 for 3/4"-1 1/4" hole Ø  
Shot Size for all Flaps: S330


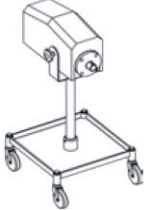
(\*): shaft Ø6.35 mm, L=7,7 cm  
(\*\*): shaft Ø9.5 mm, L=20,2 cm





	Flap Peening Items / Kits	Ref. No.:	€ / pcs	Kit 1	Kit 2	Kit 3
	Flap 9/16 x 1 1/4 <b>3M</b>	600 101	€ 28.04 Shipping weight: 15 g/pc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Mandrel for Flap 9/16 x 1 1/4 <b>3M</b>	600 201	€ 24.50 Shipping weight: 50 g/pc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Digital Tachometer including Certificate of Compliance Option Ref. No. 600 320: High End Model with ISO Test Certificate and Certification Sticker on Device	600 300 Option: 600 320	€ 195 € 435 Shipping weight: 550 g/pc	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	10 x Magnifying Glass	600 401	€ 36 Shipping weight: 100 g/pc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	20 x Magnifying Glass	600 402	€ 36 Shipping weight: 100 g/pc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	A-Almen Strips Aero Plus	200 101	€ 55.50 / for 50 pcs Shipping weight: 750 g/50pcs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Magnetic Almen Strip Holder <b>3M</b>	600 400	€ 161.90 Shipping weight: 800 g/pc	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Industrial Almen Gage Digital, meets AMS-S-13165C and SAE J442 Dec-01	800 000	€ 996 Shipping weight: 1.4 kg/pc	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Flap Peening Kit 1</b>	Including 1 Flap (9/16 X 1 1/4), Mandrel (9/16 X 1 1/4), 2 pcs of Loupes 10X & 20X, 50 pcs of A-Almen Strips AERO Plus, Magnetic Almen Strip Holder	660 500	€ 341.94 Shipping weight: 1.8 kg/kit			
<b>Flap Peening Kit 2 (plus Tachometer)</b>	Including 1 Flap (9/16 X 1 1/4), Mandrel (9/16 X 1 1/4), Digital Tachometer, 2 pcs of Loupes 10X & 20X, 50 pcs of A-Almen Strips AERO Plus, Magnetic Almen Strip Holder	660 600	€ 536.94 Shipping weight: 2.4 kg/kit			
<b>Flap Peening Kit 3 (plus Tachometer and Almen Gage)</b>	Including 1 Flap (9/16 X 1 1/4), Mandrel (9/16 X 1 1/4), Digital Tachometer, 2 pcs of Loupes 10X & 20X, 50 pcs of A-Almen Strips AERO Plus, Magnetic Almen Strip Holder, Industrial Almen Gage 34cm x 11cm x 43.5cm	660 700	€ 1532.94 Shipping weight: 3.8 kg/kit			

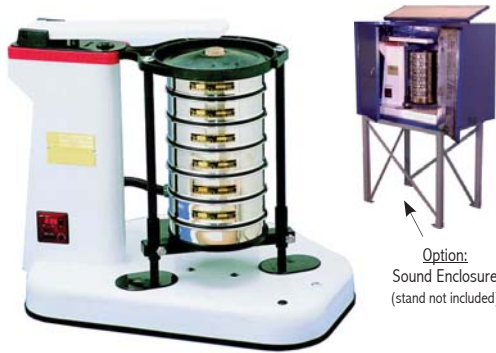
Economical Motor Kit for Flap Peening		Ref. No.:	€
	1/3 hp motor (250 Watt), heavy duty, with built-in speed control. Mounted in a cast-iron base for easy placement anywhere on the workbench. The permanent-magnet features the latest in flex shaft technology and delivers more torque throughout the entire speed range than any other flex shaft motor. 500-15000 RPM. The 220V version has a 1/6 hp motor (125 Watt).	660 990 (for 220V) 660 955 (for 110V)	€ 667
	Hand Piece (will be connected to flexible shaft) <b>Important:</b> Only for 6.35 mm (1/4") mandrel	660 999	€ 88

High End Motor Kit & Controller for Flap Peening		Ref. No.:	€
 <p><b>NEW!</b></p>  <p>Flaps shown on picture not included</p>	<p>The Suhner ROTOMAX 1.5 - Flexible Shaft Machine, which comes including a stand is a most powerful drive for various tasks. A keypad on top of the housing makes selecting the desired speed – shown in a display – both quick and easy. High end motor for the AVIATION industry. Build in speed control and display (in 100 RPM steps). RPM accuracy within +/-2%(!) 500-15'000 RPM, continuously adjustable, power output 1500W, type of protection IP45, 1-phase AC motor, voltage 230/240V, 50/60 Hz. Ask for more information. (*): Including certificate for +/-2% RPM tolerance for the range of 500-10'000 RPM.</p> <p><b>Important:</b> Fulfills Nadcap Audit requirements such as: Is there equipment to check flapper rotation speed? Is flapper peening equipment capable of maintaining required RPM to consistently conform to the required intensity level.</p> <p><b>Official Agent of</b> <b>SUHNER</b></p> <p><b>Fulfills Nadcap Audit and AMS 2590 Requirements!</b></p>	710 990 (for 220V)	€ 2660
		710 880 (for 3x480V)	North America
	FH7 hand piece with 6.35 mm (1/4") & 9 mm(**) chuck (**) <b>Important:</b> 1x2" mandrel (not included) needs to milled to Ø9 mm (from Ø9.5 mm) to fit 9 mm chuck	710 999	€ 195 Shipping weight: 0.6 kg
	Flexible Shaft: NA 7 x 2000 DIN 10/G22	710 800	€ 260 Shipping weight: 2.5 kg
		<b>Set Price</b>	<b>€ 3115</b>

	OPTION: Foot switch for ROTOMAX motor with ON/OFF function	710 700	€ 274
	OPTION: Stand on Wheels	710 600	€ 520

Economical Air Tool for Flap Peening		Ref. No.:	€
	Type 1: Small air tool for 9/16" x 1" and 9/16" x 1.25" flaps Can be used for 6.35 mm (1/4") shafts.	720 800	€ 195
	Type 2: Large air tool only for 1" x 2" flaps Has to be used two handed. 1 x 2" mandrel will be milled to Ø7.2 mm.	720 888	€ 350
Accessories needed for either Type 1 and Type 2	Air regulator & quick release ftgs: 1/4" Female Quick Release Coupling, 1/4" Female Adaptor, 1/4" Male / Male Nickle Plated Nipples, 1/4" Pressure Regulator Inc Bracket, 0 - 4 Bar Pressure Gauge	720 890	€ 65

**TYLER-Test Sieve Shaker: Ro-Tap 8"=RX-29 / 12"=RX-30**



Technical Data:

Operating voltage: 230 Volt, 50 Hertz or 110 Volt, 60 Hertz  
Time Switch: 0-99 minutes - digital  
Revolutions/min: 278  
Tappings/min: 150  
Sound emission: 86 dB<sub>A</sub>  
Weight: approx. 112 kg  
Dimensions: 710 x 540 x 640 mm (w x d x h)  
Feed quantity: max. 3kg



RX29:

6 standard or 13 half height test sieves Ø8" / Ø203mm or Ø200mm and one sieve pan

RX30:

5 standard or 8 half height test sieves Ø12" / Ø305mm or Ø300mm and one sieve pan

	Article-No.	€/pcs Outside Europe(*)	Article-No.	€/pcs Europe(**)
RX29-10 230 Volt, 50 Hertz - (not conform to CE-Standard)	650 351	€ 2250	650 320	€ 2730
RX29 110 Volt, 60 Hertz - (not conform to CE-Standard)	650 352	€ 2198	650 321	€ 2720
RX30-10 230 Volt, 50 Hertz - (not conform to CE-Standard)	650 353	€ 2580	650 322	€ 3045
Sound Enclosure (from 85 dB to 78 dB) All controls inside / Shipping: 89cm x 61cm x 74cm, Weight 76 kg			650 354	€ 580

(\*) ex works USA (\*\*) ex works Germany / Haver & Boecker who owns Tyler is bind to certain trade agreements. Tyler can only deliver the non conform CE Standard to Haver & Boecker

**TYLER-Test Sieve Shaker: Ro-Tap 8"=RX-29 / 12"=RX-30**



Technical Data:

Operating voltage: 230 Volt, 50 Hertz or 110 Volt, 60 Hertz  
Time Switch: 0-99 minutes - digital  
Revolutions/min: 278  
Tappings/min: 150  
Sound emission: ≥70 dB<sub>A</sub>  
Weight: approx. 154 kg  
Dimensions: 710 x 530 x 635 mm (w x d x h)  
Feed quantity: max. 3kg

RX29:

6 standard or 13 half height test sieves Ø8" / Ø203mm or Ø200mm and one sieve pan

RX30:

5 standard or 8 half height test sieves Ø12" / Ø305mm or Ø300mm and one sieve pan




	Article-No.	€/pcs
RX29 230 Volt, 50 Hertz - conform to CE-standard	650 420	€ 4,340
RX30 230 Volt, 50 Hertz - conform to CE-standard	650 421	€ 4,650




**Test Sieves (Brass Frame with Stainless Steel Mesh)**


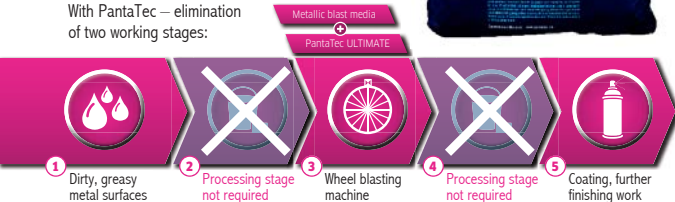

	Article-No.	€/pcs
Haver Test Sieves Ø8" (Ø203mm) HALF HT. 1-5/8" or FULL HT. 2-5/8"	-----	ask for separate price list
Haver Test Sieves Ø12" (Ø305mm) HALF HT. 2-5/8" or FULL HT. 4-1/4"	-----	
Haver Test Sieves Ø200mm HALF HT. 1-7/8" or FULL HT. 2-5/8"	-----	
Haver Test Sieves Ø300mm HALF HT. 2" or FULL HT. 3"	-----	
TYLER Test Sieves Ø8" (Ø203mm) HALF HT. 1-5/8" or FULL HT. 2-5/8"	-----	
TYLER Test Sieves Ø12" (Ø305mm) HALF HT. 2-5/8" or FULL HT. 4-1/4"	-----	
TYLER Test Sieves Ø200mm HALF HT. 1-7/8" or FULL HT. 2-5/8"	-----	
TYLER Test Sieves Ø300mm HALF HT. 2" or FULL HT. 3"	-----	

IMPORTANT: Sieves are based on working specifications. Customer is requested to provide exact sieve & mesh size.

Fluorescent Tools to check Coverage		Ref. No.:	€
 <p>Official Agent of </p>	<p>Peenscan Pens provide a convenient method for applying a thin coating of tracer fluid to very specific areas of a part without the need for masking. This has proven useful during initial engineering set-up of a part for shot peening as well as for monitoring critical areas (gear teeth, etc.) during production shot peening. It is available with two fluorescent tracer fluids and selection of the appropriate fluid is dependent on the hardness of the metal and the intensity of the shot peening process. The Peenscan 220-2 pen should be used for softer base metals, softer shot and lower peening intensities. The 220-6 pen should be used for harder base metals, harder shot and higher peening intensities. <u>Minimum Order: 1 box = 6 pieces</u></p>	750 200 (Peenscan 220-2)	€ 32 x 6 = € 192/box
		750 210 (Peenscan 220-6)	€ 32 x 6 = € 192/box
	<p>Fluoro-Finder III (DRY), has a pigment which fluoresces under ultraviolet light making the determination of the degree or percentage of coverage quick, easy and foolproof. Use of this tracer eliminates the need for 200-percent coverage in order to be assured of complete peening. In order to save on shipping costs this item is shipped in powder form. Must be mixed by user. It must be mixed with one pint of methyl ethyl ketone (MEK) by the user before use. Packaging: One Pint (473.2 ml cans)</p>	750 300 (1 pint can)	€ 75
		750 310 (1 carton=4 pints)	€ 290
			Shipping weight: 120g/box
			Shipping weight: 500g/pint

Industry Standard 100W UV Hand Lamp		Ref. No.:	€
	<p>Features: Lamp housing can rotate 360° while mounted on transformer, Cool touch plastic housing, Compact, lightweight and durable. <u>Technical Data:</u> UV Bulb: 100w Mercury Bulb; UV Bulb Life (estimated): 500 hours depending upon age, environment, cooling, switching on &amp; off; Filter Glass: 365nm; Power Supply Requirement: 230V / 50Hz; 2.0 Amps; Power: 100 Watts; Dimensions Transformer: Approx 17cms x 21 cms; Weight of Transformer: 3.3kgs; Connecting Cable Length: 2 metres; Weight of Lamp Housing: 1.2kgs; Noise: N/A (no fan)</p>	750 400	on demand
			Shipping weight: 1.5 kg

## New Blast Media Additive: Skip the washing stage. Straight from wheel blasting to the paint shop.

<p>Official Agent of </p> <p><b>NEW!</b></p> <p>With PantaTec — elimination of two working stages:</p>  <p>1 Dirty, greasy metal surfaces 2 Processing stage not required 3 Wheel blasting machine 4 Processing stage not required 5 Coating, further finishing work</p> 		<p><b>Cleaning agent for blasting processes in wheel blasting systems using metallic blasting media</b></p> <p><u>The technical benefits:</u> <span style="background-color: yellow;">Ask for more details!</span></p> <ul style="list-style-type: none"> <li>• No pre- or post-cleaning required</li> <li>• Circulating blast media stays free flowing and usable for longer</li> <li>• Less soiling of the blasting system</li> <li>• Easy removal of impurities from the process</li> <li>• The right levels of surface cleanliness and roughness become easier to achieve</li> <li>• Fully-approved by renowned coating manufacturers in terms of surface-preparation quality (e.g. Sa 2.5)</li> <li>• Significant reduction in processing times</li> <li>• Far-lower staffing requirements</li> <li>• Reliable preparation for conformity even with enhanced corrosion-resistance category C5</li> <li>• Improved operating reliability, thanks to a more-stable process</li> <li>• Reduced risk of fire</li> </ul> <p><u>The economic benefits:</u></p> <ul style="list-style-type: none"> <li>• Outstanding reductions in staffing and material costs</li> <li>• Much less time-consuming</li> <li>• Lower warranty-claim costs, thanks to improved processing reliability</li> <li>• No extra investment required</li> </ul>	
		Article-No.	€/pcs
Test Parcel - PantaTec ULTIMATE	3 bags PantaTec ULTIMATE a 4 kg (ca. 50 L) Application instructions Safety data sheet	555 410	€ 325 Shipping weight approx: 15 kg
PantaTec ULTIMATE — Half PALETTE	15 bags a 4 kg (ca. 50 L) On one way entry palett CP 2 packed in stretch film For transportation on covered trucks	555 520	€ 1,490 Shipping weight approx: 70 kg
PantaTec ULTIMATE — PALETTE	30 bags a 4 kg (ca. 50 L) On one way entry palett CP 2 packed in stretch film For transportation on covered trucks	555 630	€ 2,925 Shipping weight approx: 140 kg

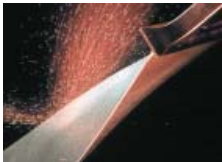


MFN Shot Peening, Practical Shot Peening and Flap Peening Training		Ref. No.:	€
<p>MFN SHOT PEENING LEVEL 1 (BASIC)</p> 	<p>Introduction to Peening: Fundamental theory; History; Applications.. Intensity L1: An understanding of Intensity; how it is determined and verified in production. Coverage L1: Coverage &amp; saturation; Coverage inspection methods. Coverage rates / media size; Influencing parameters. Procedures: Required documentation and "walk-through" of the peening process. Masking: Types available; selection criteria; application and removal methods. Peening Media L1: Types &amp; uses; Size analysis; Sieve test.</p>	<p>760 200<sup>(*)</sup> (1 day course)</p> <p>760 210 (FAA approved Certificate of Achievement)</p>	<p>€ 550</p> <p>€ 100</p>
<p>MFN SHOT PEENING LEVEL 2 (INTERMEDIATE)</p> 	<p>Intensity L2: Intensity &amp; stress depth; Constructing a sat curve; Analyzing saturation curves; Shaded strips &amp; hole peening. Preparing for Audits: Types &amp; level of audit; What to expect during audits; Preparing for audit. Peening Machines &amp; Equipment 1: Air peen; Standard nozzles; Special Nozzles. Peening Machines &amp; Equipment 2: Wheel peening machine; Media recovery &amp; separation. Peening Media L2: Manufacturing &amp; procurement specifications; Durability test. Flap Peening: Applications; Set-up &amp; calculations; Demonstration.</p>	<p>760 300<sup>(*)</sup> (1 day course)</p> <p>760 310 (FAA approved Certificate of Achievement)</p>	<p>€ 550</p> <p>€ 100</p>
<p>MFN SHOT PEENING LEVEL 3 (ADVANCED)</p> 	<p>Residual Stresses &amp; their Measurement: Definition of stresses; Measurement Techniques and their Limitations; "Walk-through" of X-Ray Diffraction technique. Fatigue in Metals: Fracture mechanics; Stress intensity factor; S-N curves, Fatigue measurement; Fatigue life &amp; Limit; Optimization Of Shot Peening. Fatigue Considerations; Surface finish effects; Pre-stressed Peening; Secondary peening. Peen Forming &amp; Shape Correction: Metal growth; Selecting growth areas; Applications; Limitations. New Technologies: Laser Shock Processing; Ultra-sonic peening; Cavitation peening. Conducting audits for Peening: Selecting criteria; Adequacy / compliance Customer requirements.</p>	<p>760 400<sup>(*)</sup> (1 day course)</p> <p>760 410 (FAA approved Certificate of Achievement)</p>	<p>€ 550</p> <p>€ 100</p>
<p>MFN PRACTICAL TRAINING FOR SHOT PEENING</p> 	<p>This practical training gives the opportunity to experience the development of parameters for a shot peening process in real. It will high light the complex interaction between the machine parameters. In addition, it will be shown how to develop the parameters in an economical and secure fashion. This unique practical training will teach first experience to evaluate the process parameters for a given work piece. A sophisticated train of machines will be at the disposal for the students.</p>	<p>760 450 (1 day course)</p>	<p>€ 650</p>
<p>MFN FLAP PEENING (hands-on)</p> 	<p>A review of your current practices and options; an introduction to shot peening, its parameters and benefits; flap peening: the process, controls and technique, specifications, what to watch out for; demonstrations of set up, intensity control, coverage, capability evaluations; new innovative uses of flap peening (straightening); practical and written tests; summation and discussions</p>	<p>760 500<sup>(*)</sup> (1 day course)</p> <p>760 510 (FAA approved Certificate of Achievement)</p>	<p>€ 550</p> <p>€ 100</p>

**Also other training available:**  
-Blast Cleaning & Surface Preparation  
-Residual Stresses and their Measurement  
-Mass Finishing  
-International Business

**Most Courses are available in German, English, Turkish, Portuguese, French, Italian, Japanese, Chinese and Spanish!**  
**Ask for more details!**

(\*): All courses are available as either on-site training or at workshops. Ask your local distributor where the nearest workshop is taking place. For on-site training a minimum of 5 persons is required (travel expenses of teacher charged separately).

Consulting for Shot Peening		Ref. No.:	€
<p>Consulting for Shot Peening</p>  <p>Official Agent of <b>MFN</b></p>	<p>To offer a consulting service for Shot Peening is a very demanding task. One of the reasons is, that unlike giving training or a presentation, one can hardly prepare for such a consulting service. The scope of issues to be evaluated and the problems to be solved are always different and may be connected to a whole range of different fields. They may not even be related to shot peening directly, but to material science, process layout, equipment, logistics, audits, specifications, calibration of equipment and much more. So a consultant for shot peening must not only have a deep knowledge of the related topics and an extensive industrial experience, but also needs a fundamental scientific background. In addition he is required to be good communicator in order to bring the best possible benefit to a client.</p>	<p>760 600</p>	<p>price on request</p>

Books / Magazines / Market Study	Ref. No.:	€
<p>Book: Shot Peening</p>  <p>The cover of the book 'Shot Peening 3rd Edition' features a red header with the title in white. Below the title is a photograph of a peening machine in operation, with a workpiece being treated. The text on the cover includes '3rd Edition', 'Shot Peening', and 'A Dynamic Application and Its Future'. It also lists the editor, authors, and the MFN logo.</p>	<p>The 1st edition of SHOT PEENING was published in 2006. Six years later, two editions have been sold out and a completely revised and updated 3rd edition of SHOT PEENING has now been published with over 300 pages. This level of success is certainly unusual and only possible thanks to the twenty dedicated authors. Many of them are known experts in their field and have also been teaching the process of shot peening for years. New chapters have been added to include further developments. Topics: Introduction to peening and theory, peening intensity, effect of peening, Almen saturation curves, peening coverage, exposure time, trouble shooting, process documentation, masking solutions, workpiece fixtures, shape &amp; size inspection of peening media, cut wire, cast steel shot, ceramic media, specifications, shaded strips, peening equipment components, air &amp; wheel peening, machinery types and application examples, hole peening, flap peening, optimization of shot peening for fatigue critical applications, residual stress, XRD measurement, quantitative characterization of the shot peening process, laser peening, shot peening in the automotive industry, shot peening process improvements, marketing quantification of the shot peening market, additives for peening and blasting, also introducing blast cleaning and deep rolling, etc.</p>	<p>760 710</p> <p>€ 125</p> <p>Shipping charge: Asia €15 Other: €25</p>
<p>Magazine: MFN</p>  <p>The cover of the magazine 'MFN Metal Finishing News' is green and white. It features the title 'MFN' in large green letters. Below the title, it says 'Metal Finishing News' and 'Published in North &amp; South America, Europe and Asia'. There are several small images and text boxes on the cover, including 'New Shot Blasting Technology, Cuts Downtime' and 'New Shot Blasting Technology, Cuts Downtime'.</p>	<p>MFN (Metal Finishing News) is a magazine specialized in peening, blasting, mass finishing and cleaning.</p> <p>Circulation: around 5400 issues Distribution: to 67 countries Frequency: 6 times/year 80 pages</p>	<p>760 820</p> <p>€ 90/year</p> <p>€ 165/2 years</p>
<p>Market Study: The Metallic Abrasives Industry</p>  <p>The cover of the market study 'The Metallic Abrasives Industry Global Study 2011 and Strategic Perspective 2015' is yellow and red. It features the title in bold black letters. Below the title, it says 'Global Study 2011 and Strategic Perspective 2015' and '3rd Edition'. There is a map of the world on the cover.</p> <p>Ask for detailed description of INDEX</p>	<p>This third edition scrutinizes the metallic abrasives industry and the shot-blasting market in 2011 from three angles: 1. Marketing / industrial, from penetrating and well-documented insights, 2. Strategic, from the shareholders perspective, to foresee what the future holds, 3. Academic, focusing on the business models' effectiveness and the execution of the strategies. This study measures precisely how new shot-blasting machines, with higher productivity and performance, reduce the usage of metallic abrasives. It explains the particular consumption patterns of the German foundry segment and consequences this will have on high carbon steel abrasives consumption.</p> <p>It sheds light on the key players: Who ranks N°2, Sinto or Ervin? How is Winoa (formerly Wheelabrator Allevar) doing? What are the strategic options of the global leader, considering the debt carried by the holding company WHA? What will be the future of the Ervin new plant being built in Glaubitz (Sachsen, Germany)? What is the status of the current European investigations on the competitive practices of the steel abrasives producers? What consequences will this have on the structure of supply? Why is Fujian Duoling further expanding the processing capacity of its mega-plant near Xiamen? Which players will grow or shrink by 2015 and 2020? Etc.</p> <p>This third edition brings along additional features: Segmentation by product, application, industrial sector and type of machine; Quantification of the market in 122 countries, with the detailed profile of the metal related industries in 70 ones; Updated repertory of all significant producers; Census of the new capacities being added, of the potential new entrants and their advancing programs.</p> <p>This study is a unique and valuable business intelligence tool for media and machine manufacturers, distributors and end-users, investors and government agencies.</p>	<p>760 930</p> <p>€ 2500</p> <p>Shipping charge: Asia €15 Other: €25</p>

## Recalibration and Spare Parts for Almen gages

Miscellaneous Products and Services for the HP Almen Gage	Ref. No.:	€
Recalibration for all type of gages (shipment of gage to original supplier required)	700 101	€ 175
Recalibration for all type of gages (shipment of gage to original supplier required) Inclusive international certificate indicating that all measurements are done according <u>ISO 9001</u>	700 101-1	€ 250
Digital Indicator (same for all type of gages)	700 303	€ 270
Curved Calibration Block (same for all type of gages, including certificate of compliance), 88 - 90 g per pc	700 111	€ 95
Battery Replacement for Indicator, Type 3V-CR 2032	700 404	€ 10
Protective nickel plated, sand blasted casing for digital indicator, Upgrade from Industrial to Industrial Plus, can be installed by customer.	700 405	€ 140