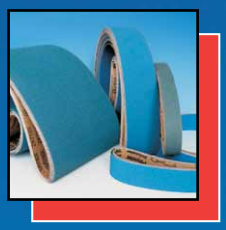
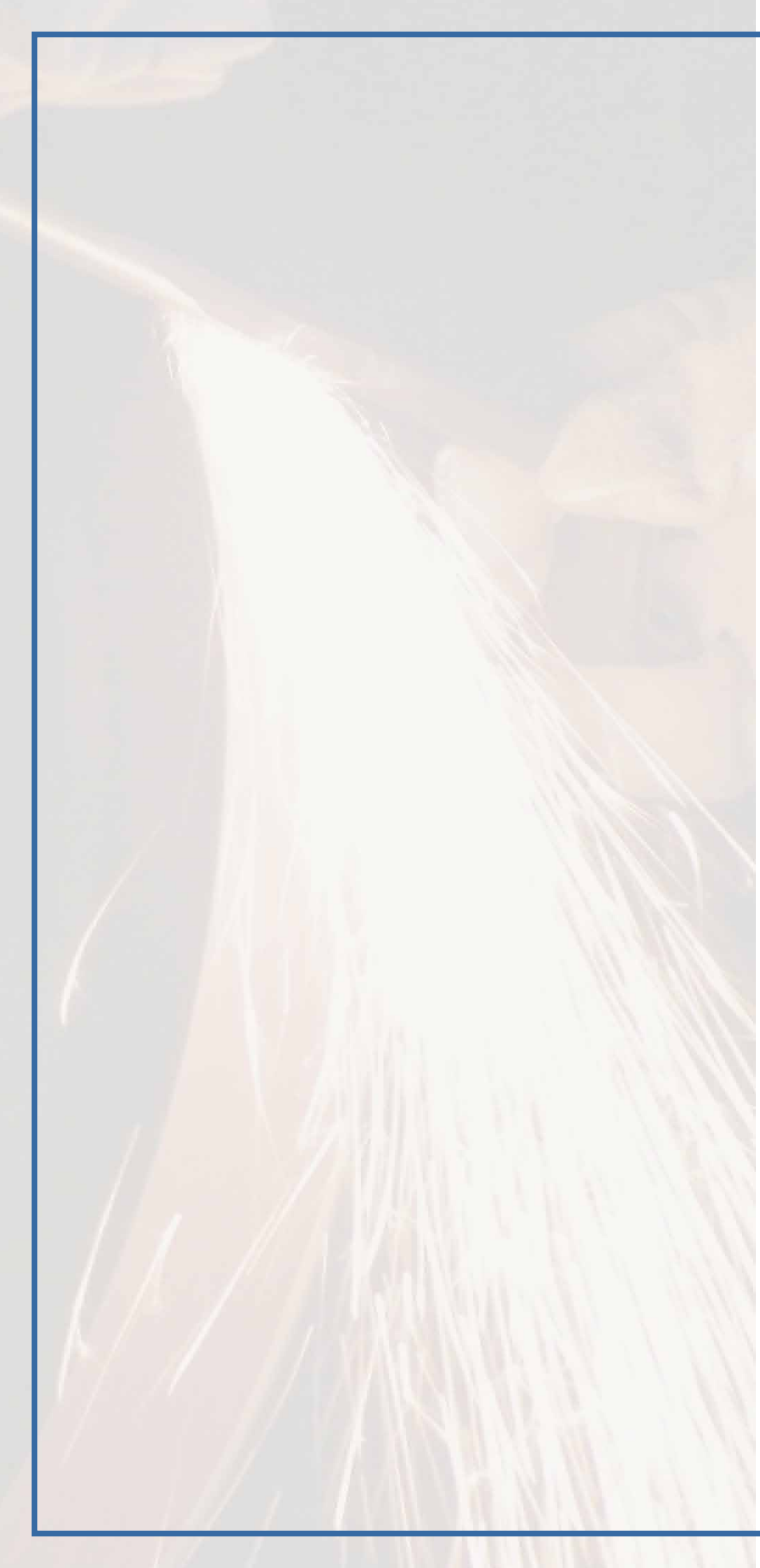


Friedrich August Picard GmbH & Co. KG

Complete Catalogue

PICARD
Friedrich August Picard
GmbH & Co. KG
WISSEN WORUM ES SICH DREHT

Grinding Deburring Polishing Brushing



WELCOME!

Dear customers and friends of Picard,

many of you have been familiar with our family-run company for a long time. You know about the expertise we have developed over our 100 years of existence through ongoing research and development, dialogues with users and suppliers, and cooperation with universities and institutions.

Today we are one of the leading manufacturers of grinding, deburring, polishing and brushing tools, contact wheels and contact rollers, and we are an authorised partner in many different sectors of industry. Besides a very wide standard product range, one of our strengths is the ability to respond flexibly and fast to our customers' specific requirements.

Our continuing success is primarily down to you - our customers at home and abroad - who have remained loyal to us for many decades and who appreciate our high-quality products bearing the label "Made in Germany".

But we also owe thanks to the major contribution made by our committed and dependable staff, without whose dedication we would not be where we are today. Every day they play their part in producing the very highest quality products - all with a view to ensuring optimum customer satisfaction.

We are delighted that you are interested in our product range and hope you enjoy browsing our catalogue.

Dirk Vahrenholt Jörn Vahrenholt

HISTORIE - FRIEDRICH AUGUST PICARD GMBH & CO. KG

2000 - TODAY

Today Picard is a leading provider of grinding, deburring, polishing and brushing systems. We constantly enhance our product portfolio by adding new materials, new manufacturing technologies and new developments (such as the deburring rollers FAPI-FLEX, the deburring discs series, the return pulleys FAPI-SWITCH, etc.), with the aim of providing our continually growing customer base at home and abroad with products of the very highest quality.

Today the company is managed by the fourth generation of the brothers Dirk Vahrenholt and Jörn Vahrenholt. Their relocation to the new installations (production hall with administrative wing of 2.200 m^2) in Hückeswagen was also the basis for further growth.

The new company building in Hückeswagen

1950 - 2000

The consistent advancements of synthetic abrasive products and contact wheels for the belt grinding system is advanced particularly by **Edmund Vahrenholt**, the 3. generation ot the enterprise. Our product portfolio has been enhanced by the addition of a manufacturing plant for cloth and sisal polishing rings and wheels, as well as profile sanding tools for the woodworking industry.

A rapidly growing customer base is a reflection of the high quality product the company produce.

Picard - Logo (to 2000)

Picard - Logo (2001 – today)

1907 - 1950

After the World War I had been overcome, the production was moved 1919 to Knusthöhe in Remscheid-Lennep. After World War II and the death of our founder in October 1945, manufacturing of poplar wood wheels and sales of technical industrial requisites were initially continued in our intact premises. With the support of our loyal staff we were able to gradually rebuild our synthetic grinding equipment production facility, which was destroyed in the war.

Production in the 1950s

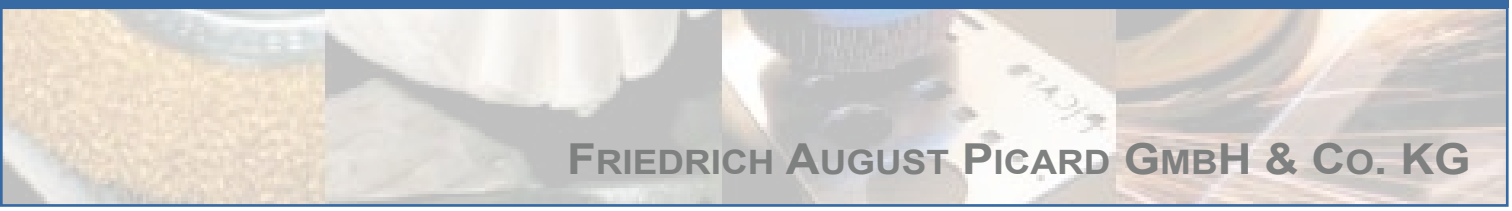
Exhibition, c. 1930

1907 COMPANY ESTABLISHED

The company's founder, **Friedrich August Picard**, opened a store selling plumbing and manufacturing supplies at Freiheitstrasse 23 in Remscheid, Germany, on 2 January 1907. The business's reputation was soon established thanks to his farsightedness both as a businessman and as an engineer.

Friedrich August Picard (*1875 - †1945)

Factory in Remscheid, 1927



FRIEDRICH AUGUST PICARD GMBH & CO. KG

FRIEDRICH AUGUST PICARD GMBH & CO. KG

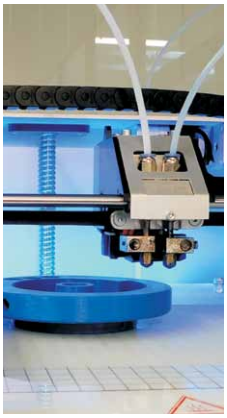
As a family company going back four generations, Friedrich August Picard GmbH & Co. KG has been a leading manufacturer of grinding, polishing, brushing and deburring tools as well as contact wheels and rollers for belt grinding processes in a wide range of industries for more than 100 years.

EXPERIENCE AND INNOVATION

In our company we combine a wealth of experience with a very strong innovative spirit. By constantly improving and enhancing our tools and machines, we are always able to respond fast and efficiently to queries and problems around grinding, deburring, polishing and brushing.

RESEARCH AND DEVELOPMENT

Thanks to very close cooperation and development work with customers and suppliers, we are able to continuously fall back on the latest state-of-art in grinding, polishing, deburring and brushing technology.



INTELLIGENT PRODUCTION

Our winning combination of highly committed, qualified staff and state-of-the-art manufacturing technologies enables us to produce flexibly, rationally and to the very highest quality standards.

SYSTEM PROVIDERTER

We are a system provider. We offer our customers a one-stop service. So we offer a highly diverse product range that is sure to include exactly the right tool or machine for your case of application. Our product range is divided into the following areas:

- Deburring tools
- Contact wheels
- Rolls and rollers
- Abrasive materials
- Grinding tools
- Polishing tools
- Brushing tools
- Machines
- Extraction units
- Accessories

FAPI - A STRONG BRAND

FAPI

Friedrich **A**ugust **Pi**card GmbH & Co. KG

Strong brands that stand for top performance and top quality make their mark in the marketplace. All Picard tools, Picard abrasive materials and Picard machines have these qualities and will therefore increase your productivity.
It's easy to recognize whether you have one of our top quality products in your factory: just look for the "FAPI" label.

INDIVIDUAL ADVICE

Every application has its own specific requirements. Our committed and highly qualified sales representatives are always at your disposal to help and give you fast, expert advice.

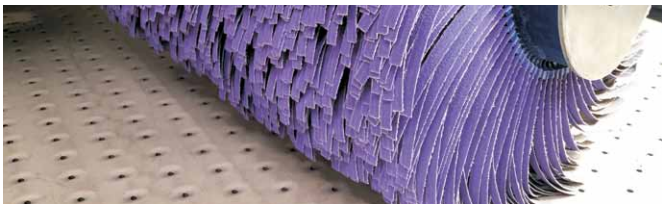
Please give us a call: +49 (0)2192/85930-0
Or send us an email: info@picard-kg.com

INDEX

INTRODUCTION.....PAGES 02 - 05

History.....Page 02
Friedrich August Picard GmbH & Co. KG.....Page 03
Index.....Page 04

DEBURRING TOOLS.....PAGES 06 - 21



Deburring tools*.....Page *06
Deburring rollers FAPI-FLEX.....Page 08
Deburring disc - series.....Page 12
Deburring discs / deburring segments.....Page 20
Deburring wheels / elastic grinding wheels.....Page 21

CONTACT WHEELS.....PAGES 22 - 37

***Contact wheels*.....Page 22**
***Contact wheels full version*.....Page 23**
Contact wheels FAPI-PA – series.....Page 24
Contact wheels FAPI-VU – series.....Page 26
***Contact wheels lamellae version*.....Page 29**
Contact wheels FAPI-KS/V – series.....Page 30
Contact wheels FAPI-VUS – series.....Page 32
Contact wheels FAPI-PUS – series.....Page 34
Contact wheels FAPI-BW – series.....Page 36
Recovering of contact wheels.....Page 37

ROLLS AND ROLLERS.....PAGES 38 - 45

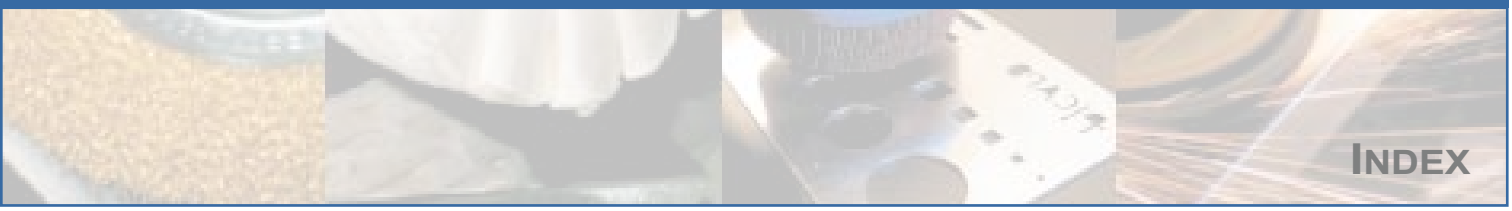
***Rolls and Rollers*.....Page 38**
Contact rolls / folding contact wheels / -rollers.....Page 39
Return pulleys.....Page 40
Return pulleys FAPI-SWITCH.....Page 41
Expander wheels / expander rollers.....Page 42
Abrasive sleeve holders / expander rollers.....Page 43
Air contact rolls / pressure rolls / guide rolls.....Page 44
Pressure and feed rolls / band saw wheels.....Page 45

ABRASIVE MATERIALS.....PAGES 46 - 55

***Coated abrasives*.....Page 47**
Endless abrasive belts (narrow-/wide belts).....Page 48
Abrasive sleeves.....Page 49
Fiber discs.....Page 50
Velcro-backed grinding discs.....Page 51
Abrasive rolls.....Page 52
Abrasive fleece / Scotch-Brite™.....Page 53
Trizact™- / Cubitron™-abrasive material.....Page 54
Diamond- / CBN-abrasive material.....Page 55

GRINDING TOOLS.....PAGES 56 - 69

***Grinding flap tools*.....Page 56**
Grinding discs FAPI-ATTACK.....Page 57
Flap grinding wheels.....Page 58
Flap grinding rollers / mounted flap wheels.....Page 59
Profile sanding rollers / profile sanding wheels.....Page 60
Pleated grinding mop / sanding strip rings / grinding stars....Page 61



INDEX

Abrasive fleece tools ..... ***Page 62***
Abrasive fleece rings ..... Page 63
Satin finishing wheels / -rollers ..... Page 64
Satin finishing rollers / -mounted flap wheels ..... Page 65
Combined satin finishing wheels / -rollers ..... Page 66
Combined satin finishing rollers / -mounted flap wheels ..... Page 67
Cleaning rollers / -plates / -discs ..... Page 68
Serration grinding wheels / wood profile wheels ..... Page 69

POLISHING TOOLS.....PAGES 70 - 83

Sisal and sisal cotton tools ..... ***Page 70***
Sisal wheels / sisal cloth wheels / sisal fabric rings ..... Page 71
Sisal cord brushes / sisal cord rings ..... Page 72
Sisal cotton rings ..... Page 73
Cloth- / sisal cloth- / cloth leather lappers ..... Page 74
Combi rollers / leather rollers ..... Page 75
Cotton polishing tools ..... ***Page 76***
Polishing - / buffing - / flap polishing wheels ..... Page 77
Polishing rings ..... Page 78
Polishing rings / polishing rollers ..... Page 79
Felt tools ..... ***Page 80***
Felt rollers / felt belts / felt sleeves ..... Page 81
Felt polishing discs ..... Page 82
Felt rollers / felt polishing points ..... Page 83

BRUSHING TOOLS.....PAGES 84 - 91

Brushing tools ..... ***Page 84***
Round brushes ..... Page 86
Round brushes / ring brushes ..... Page 87
Roller brushes ..... Page 88
Shaft - / end - / cup brushes ..... Page 89
Knotted round brushes ..... Page 90
Fibre cardboard brushes / brush grinding system ..... Page 91

MACHINES.....PAGES 92 - 105

Machines ..... ***Page 92***
Deburring case kit / angle grinders ..... Page 93
Longitudinal grinding system / fillet weld grinders /
Tube belt grinders ..... Page 94
Pneumatic hand sander unites / flexible shaft machine ..... Page 95
Tube grinding machines / deburring machine ..... Page 96
Belt grinding and polishing machines 72713 / 72711 ..... Page 97
Belt grinding and polishing machines SMB / DS 7722 ..... Page 98
Belt grinding and polishing machines 72730 / 72780 ..... Page 99
Belt grinding and polishing machines SMG56 / SMZ57 ..... Page 100
Belt grinding and polishing machines 72780 / SMG58 ..... Page 101
Surface belt grinding machines BS75 - BS300 ..... Page 102
Surface belt grinding machines BS75W - BS300W /
Surface belt grinding machines BS200/150S ..... Page 103
Workshop machines ..... Page 104
Serration grinding machines ..... Page 105

EXTRACTION SYSTEMS.....PAGES 106 - 109

Extraction systems ..... ***Page 106***
Stationary extraction systems / stationary wet separators ..... Page 107
Small dust collectors / mobile extraction systems ..... Page 108
Mobile wet separators / Industrial vacuum cleaners ..... Page 109

ACCESSORIES.....PAGES 110 - 115

Accessories ..... ***Page 110***
Flange connectors / mounting adapter /
TRIM-adapter / Alu-socket ..... Page 111
Clamping covers / aluminium flanges / mandrel ..... Page 112
Velcro supporter / self-adhesive velcro support /
Polishing wheel dresser ..... Page 113
Brushing and polishing compounds / grinding soap /
Grinding grease ..... Page 114
Belt grinding oil / vienna lime / cleaning stones ..... Page 115

DEBURRING TOOLS

OVERVIEW DEBURRING DISC-SERIES

deburring discs
FAPI-TRIM

deburring discs
FAPI-TRIM125

deburring discs
FAPI-M14

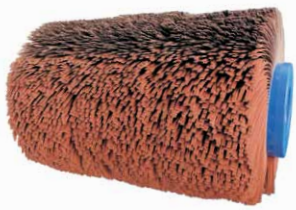
deburring discs
FAPI-FIT150

deburring discs
FAPI-350

deburring discs
FAPI-250

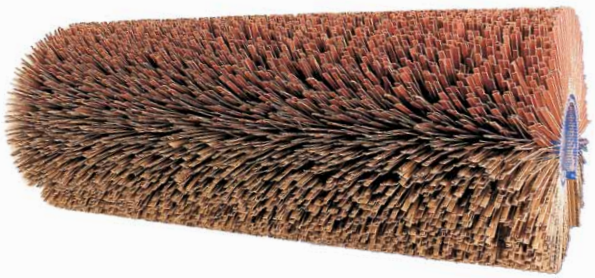
deburring discs
FAPI-150

OVERVIEW DEBURRING ROLLER-SERIES



deburring rollers
FAPI-FLEX

deburring wheels
FAPI-FLEX



deburring rollers
FAPI-FLEX

DEBURRING TOOLS

BURR FORMATION

A burr is formed along the edges of metal components when they are mechanically processed because of the displacement of the material. Burrs are also formed along the cut edges of workpieces that are laser cut, water jet cut, die cut, etc. Thicker sheet metal cut using plasma or oxyfuel processes have a tendency to form very thick burrs and slag formation during cutting.

PROCESS "DEBURRING"

Our deburring tools are used in the industry for deburring resp. edge rounding. After the workpiece is cut, a common procedure is first to grind off the primary burr, then to deburr or round off the edges of the workpiece.

TYPES OF DEBURRING TOOLS

Deburring tools are devided in the following two types

DEBURRING TOOLS disc form

- FAPI-M14
- FAPI-TRIM
- FAPI-TRIM 125
- FAPI-150
- FAPI-FIT 150
- FAPI-250
- FAPI-350
- FAPI-FLEX SAT

DEBURRING TOOLS roller form

- FAPI-FLEX
- FAPI-FLEX COARSE
- FAPI-FLEX GAP
- FAPI-FLEX SHINE
- FAPI-FLEX WAVE

INTENSITY OF EDGE ROUNDING

Edge rounding depends on three factors:

Deburring machine

A distinction can be made between deburring machines for tools in roller and disc form. Besides the number of deburring tools on a deburring machine, the possible contact pressure exerted by the machine on the workpiece and the number of grinding heads are decisive factors.

Workpiece

The shape, the thickness and the burr (possibly pretreated) are decisive for the rounding result.

Deburring tool

The grain size, the supporting fabric and the flexibility of the deburring tool are the deciding parameters for achieving an optimum rounding result.

Rule of thumb:

The edge rounding on the workpiece becomes stronger

- the rougher the grain size.
- the firmer the supporting fabric.

FINE GRAIN		COARSE GRAIN
LOW	EDGE ROUNDING	HIGH
LOW	STOCK REMOVAL	HIGH
HIGH	ADAPTABILITY TO THE WORKPIECE	LOW
FINE	SURFACE	COARSE
PROFILED	WORKPIECE CONTOUR	FLAT
SOFT SUPPORTING FABRIC		HARD SUPPORTING FABRIC

CUTTING SPEED

For deburring we recommend using different cutting speeds. The values given below are averages. The optimal cutting speed for the process concerned have to be decided in practice according to the application.

Deburring tools in disc form:	12 m/s
Deburring tools in roller form:	17 m/s

DEBURRING ROLLERS FAPI-FLEX

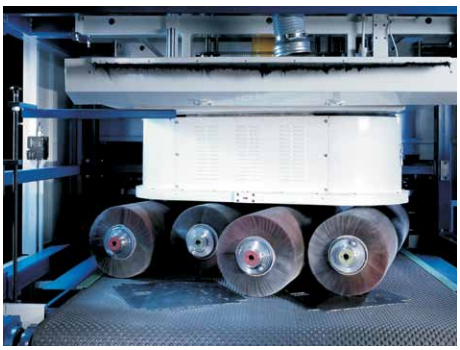
DEBURRING ROLLERS FAPI-FLEX

The processing of sheet metal parts, by die cutting, laser, plasma cutting, flame cut, etc. always generates a burr.
The challenge in factories to deburr or round these "sharp" edges of the workpieces has been met by the development of our deburring rollers FAPI-FLEX. By using these high-flexible tools on automatic machines sheet metal parts can be optimal rounded resp. deburred

Dimensions:	Diameter:	150 to 400 mm
	Width:	200 to 1.500 mm
Grain sizes:	60 / 80 / 100 / 120 / 150 / 180 / 240	
Applications:	Rotor- as well as dual or multi-roll grinding machine (Fladder, Ernst, Timesavers-, Weber-deburring machines,etc.)	

PRODUKTVORTEILE ENTGRATSCHLEIFWALZEN FAPI-FLEX

- ⇨ economic grinding process (optimal cost-benefit-factor)
- ⇨ quick tool change plus short set-up times
- ⇨ low costs for assembly and disassembly
- ⇨ variety of different abrasive cloths for highly diverse applications
- ⇨ variable dimensions, grain sizes and facing varieties according to application process
- ⇨ service life up to 2-times longer due to higher abrasive cloth ratio and convenient abrasive cloth assembly
- ⇨ constant cutting power to the end (abrasive cloth remains sharp until the end)
- ⇨ deburring rollers FAPI-FLEX may be used just before reaching the core
- ⇨ protect the conveyor belt compared to grinding flaps arranged radially



DEBURRING ROLLERS FAPI-FLEX

FACING TYPES

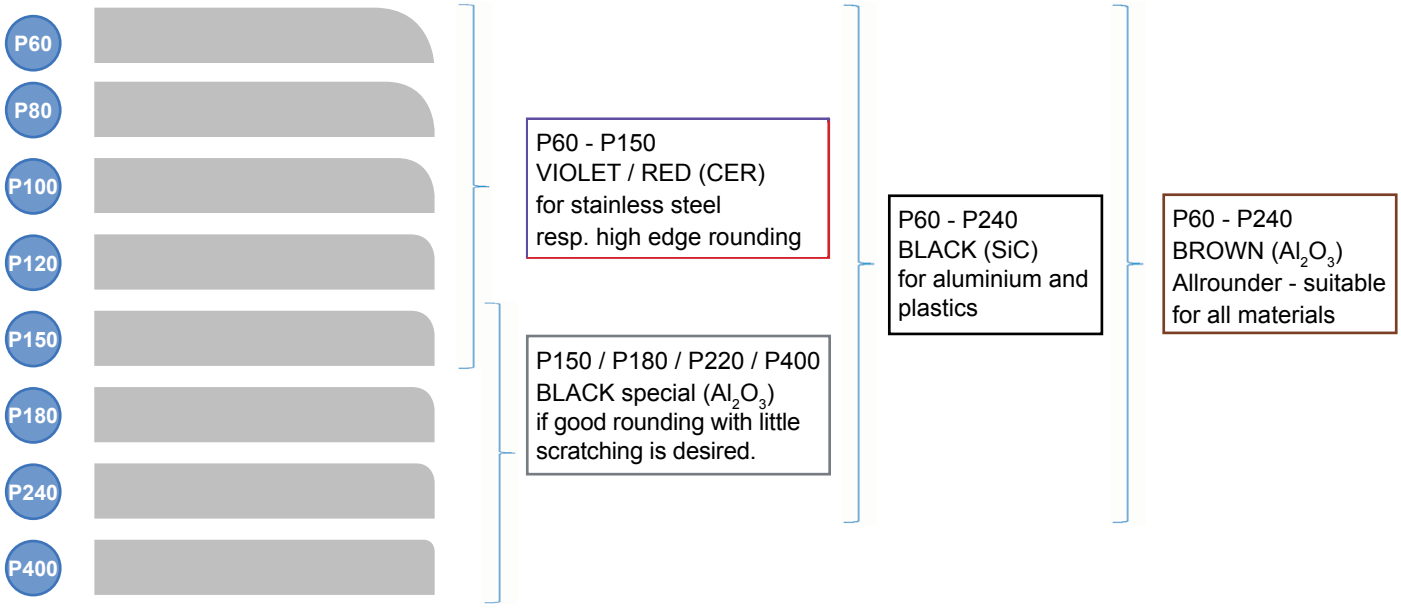
BROWN (Al_2O_3)
Allrounder - suitable for all materials

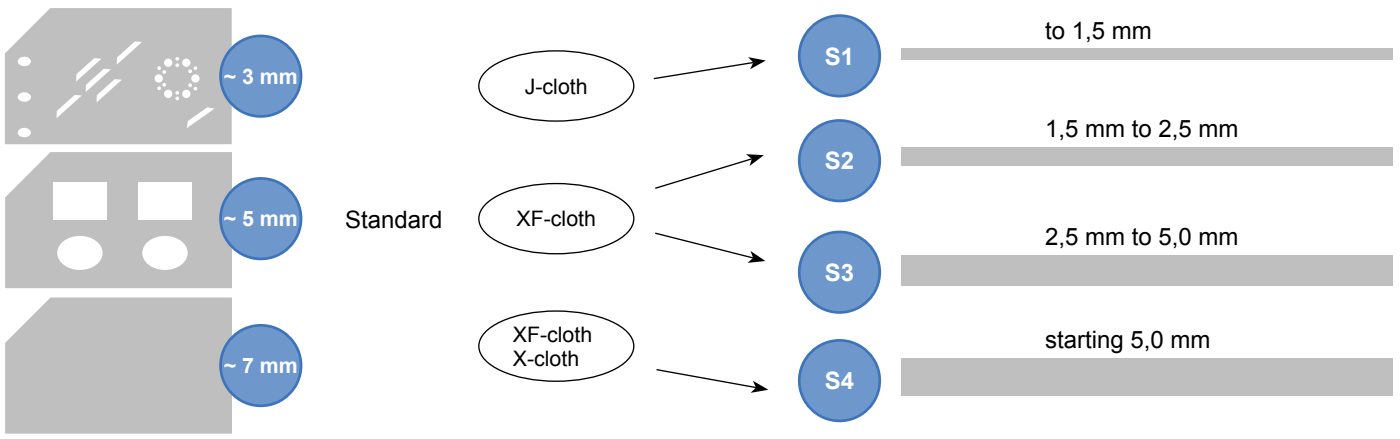
BLACK (SiC)
for aluminium and plastics

VIOLET (CER)
for stainless steel
resp. high edge rounding

RED (CER)
for stainless steel
resp. high edge rounding

EDGE ROUNDING





contour/
slitting abrasive cloth

flexibility
of abrasive cloth
J = flexible
XF = semi-flexible
X = sturdy

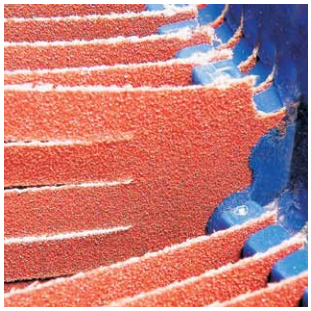
workpiece thickness

DEBURRING ROLLERS FAPI-FLEX

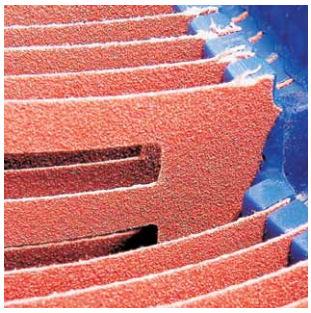
VARIABLE FACING TYPES

Due to further optimation of the facing types as wave cut or radial assembly the deburring result can be influenced decisively.

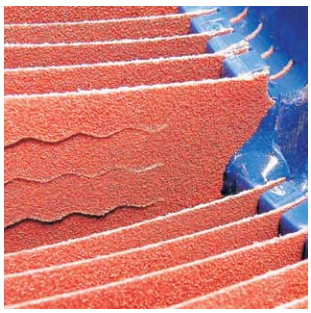
FAPI-FLEX
is our standard type.
This deburrnng roller offers due to the high abrasive cloth ratio and axial assembly best deburring results and lifetimes



FAPI-FLEX GAP
is our special type,
for example for three-dimensional sheet metal working

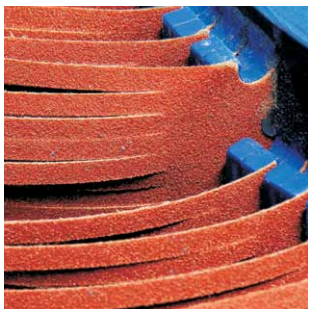


FAPI-FLEX WAVE
is our deburring roller with the feature to round higher holes or break-outs, because the wave-like lamellae adapt to the edge and obtain an optimal deburring result.



FAPI-FLEX COARSE
is our deburring roller for the particular surface. Due to the lamellae which are assembled especially in radial running direction you obtain a directionless surface similar to an eccentric grinding.

FAPI-FLEX SHINE
is our deburring roller for a normal edge rounding and a slight gloss.



Deburring rollers Fapi-Flex

Deburring rollers Fapi-Flex (for Timesavers-machines)

Type: 42 Serie 1350
42 Serie 1000
32 Serie 1100

Dimensions: diameter: 350 mm
width: 300 mm / 500 mm / 1.000 mm
hole: 80 mm / 100 mm / 135 mm

Grain sizes: P60 - P240

Grain types: aluminium oxide (Al_2O_3), silicon carbide (SiC), zircon corundum (ZA), ceramic (CER)

Deburring rollers Fapi-Flex (for Weber-machines)

Type: TT / NLC / MKS / MK / MRB / PT

Dimensions: diameter: 250 mm
width: 250 mm / 300 mm
hole: 80 mm

Grain sizes: P60 - P240

Grain types: aluminium oxide (Al_2O_3), silicon carbide (SiC), zircon corundum (ZA), ceramic (CER)

Deburring rollers Fapi-Flex (for Fladder®-machines)

Type: AUT / GYRO 200 / GYRO 300 / GYRO 400

Dimensions: diameter: 300 mm / 350 mm / 400 mm
width: 250 mm / 300 mm / 350 mm
hole: 32 mm / 100 mm / 200 mm

Grain sizes: P60 - P240

Grain types: aluminium oxide (Al_2O_3), silicon carbide (SiC), zircon corundum (ZA), ceramic (CER)

Deburring rollers Fapi-Flex (for Ernst-machines)

Type: Atlas / Neptun / Pluto/Titan /Triton ES

Module: Spin / Rotor / Brushes (deburring rollers)

Dimensions: diameter: 250 mm / 300 mm / 350 mm
width: 250 mm / 450 mm / 600 mm / 1.400 mm /1.500 mm
hole: 60 mm / 65 mm

Grain sizes: P60 - P240

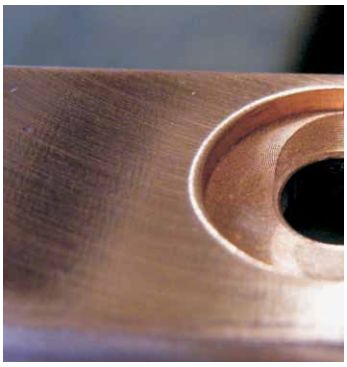
Grain types: aluminium oxide (Al_2O_3), silicon carbide (SiC), zircon corundum (ZA), ceramic (CER)

DEBURRING DISC - SERIES

DEBURRING DISC FAPI-SERIES

Cost-effective and productive solutions for the mechanical deburring of sheet metal parts are the industrial requirements today. Deburring tools must remove both, loose and adhering burrs while guaranteeing the optimal rounding of edges on workpieces. This requires a rapid, safe and clean deburring or edge rounding.

Our deburring discs series has been specifically developed for the "deburring" process and their design and structure are adapted to the individual applications (abrasive fleece quality/grain size of the abrasive cloth).



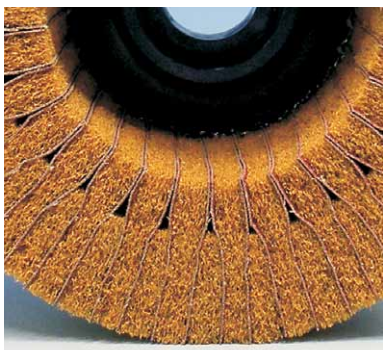
Workpiece before and after treatment with a deburring disc FAPI-M14 SAND on an angle grinder

FACING VARIETIES

Next to our standard design of deburring discs where the abrasive fleece/abrasive cloth lamellae are uniformly arranged on the carrier disc, two other variants have been developed: the Y-version and the double row.
In the Y-version, an alternating small and a broad abrasive fleece lamella with uniform broad abrasive cloth lamellae are arranged on the carrier disc. Inversely, in the double row design, uniform broad abrasive fleece and abrasive cloth lamellae have been arranged in two rows. In both designs, the filling density of the abrasive fleece at the inside and outside radius is thus the same. Compared to our standard discs, they have a higher flexibility in their practice and adapt optimally to the smaller sections and inside contours.

single row (Standard)

double row



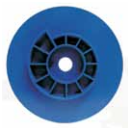
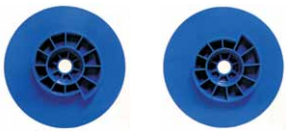
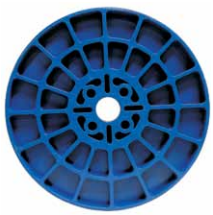
Y-version

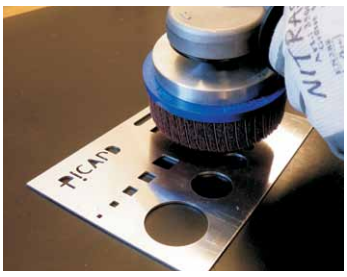
DEBURRING DISC - SERIES

DEBURRING DISC-SERIES

The diversity of our deburring disc series based on different mountings (M14 threads, quick release system, 25 mm and 30 mm hole) offers a wide spectrum of applications.

The deburring discs of the FAPI-M14 series are the ideal tool for hand-operated deburring. The integrated M14 thread can be adjusted to regulated angle grinders and is especially fit for smaller and medium series, in which the purchase of an automatic deburring machine is not worthwhile. On the contrary, our deburring discs of the FAPI-TRIM, FAPI-TRIM 125, FAPI-FIT 150, FAPI-150 and FAPI-250 series allow the use on stationary deburring machines as well as on the automatic deburring machines for the processing of greater series.

Deburring disc-series	Ø [in mm]	Mounting	use
FAPI-M14	115		hand held machines (e.g. angle grinders)
FAPI-TRIM	115		COSTA, KUHLMEYER, WEBER, angle grinder
FAPI-TRIM 125	125		COSTA, KUHLMEYER, WEBER, angle grinder
FAPI-FIT 150	150		GECAM, LISSMAC, LOEWER, Q-FIN, RWT, TIMESAVERS, VG Machines
FAPI-150	150		GECAM, LISSMAC, LOEWER, Q-FIN, RWT, TIMESAVERS, VG Machines
FAPI-250	250		LOEWER, MIDWEST AUTOMATION, PEITZMEYER, Q-FIN



Deburring disc FAPI-M14 used on an angle grinder

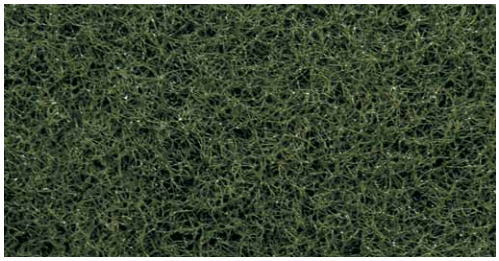
Deburring discs FAPI-TRIM used on a planetary head system

Deburring disc FAPI-150 used on a Manual Grinder from Timesavers B.V.

Deburring discs FAPI-250 used on a Loewer DiscMaster 4TD

DEBURRING DISC - SERIES

ABRASIVE FLEECE FAPI-GREEN *SOFT FLEECE!*

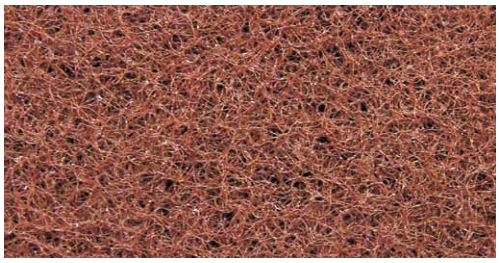


Material: aluminium, steel

Application area: Deburring of thin sheet with small holes or cuttings

Picard advice: For contours of category 1+2
as well as workpiece strengths of category 2+3+4

ABRASIVE FLEECE FAPI-BROWN *ALLROUNDER!*

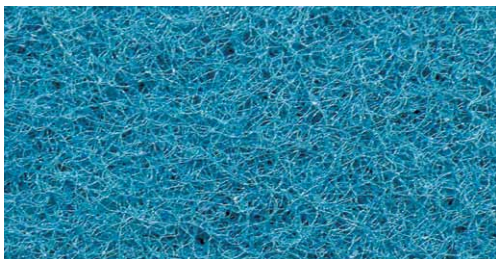


Material: aluminium, steel, stainless steel

Application area: Deburring of different sheet types,
particularly for frequent change of materials

Picard advice: For contours of category 2+3
as well as workpiece strengths of category 2+3

ABRASIVE FLEECE FAPI-BLUE *SELF-SHARPING!*

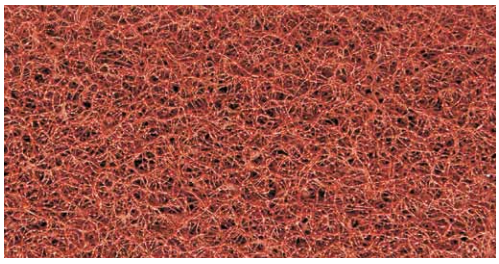


Material: steel, stainless steel

Application area: Deburring of steel, tool steel and stainless steel sheet,
particularly thick sheet metal

Picard advice: For contours of category 3+4
as well as workpiece strengths of category 1+2+3

ABRASIVE FLEECE FAPI-MAROON *1ST IN HIGH STOCK REMOVAL!*

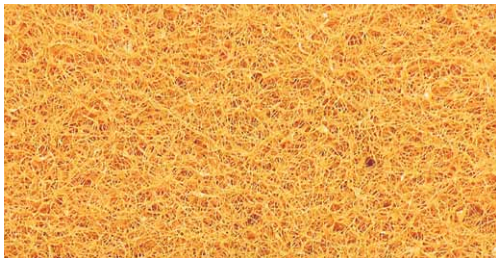


Material: aluminium, steel, stainless steel

Application area: Intensive deburring, high stock removal on different sheets

Picard advice: For contours of category 2+3
as well as workpiece strengths of category 2+3

ABRASIVE FLEECE FAPI-YELLOW WET & DRY *VERSATILITY! WET AND DRY!*



Material: steel, stainless steel

Application area: Deburring of steel, tool steel and stainless steel sheet,
as well as wet deburring

Picard advice: For contours of category 1+2
as well as workpiece strengths of category 1+2+3+4

DEBURRING DISC - SERIES

ABRASIVE FLEECE FAPI-SAND *CUT AND POLISH!*

Material: steel, stainless steel

Application area: Deburring of steel, tool steel and stainless steel sheet

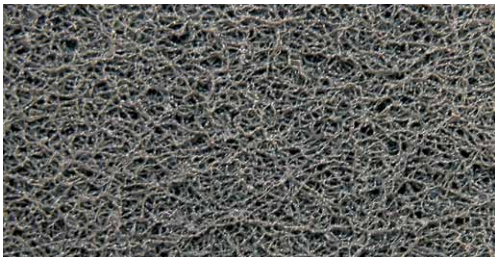
Picard advice: For contours of category 3+4
as well as workpiece strengths of category 1+2+3

ABRASIVE FLEECE FAPI-GREY *SHARP GRIT!*

Material: aluminium, plastic

Application area: Deburring of NE-metals and plastics

Picard advice: For contours of category 1+2+3
as well as workpiece strengths of category 1+2+3

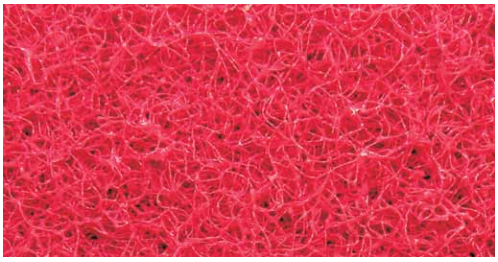


ABRASIVE FLEECE FAPI-RED *ROUGH & STRONG!*

Material: steel, stainless steel

Application area: Deburring of steel parts or tool steel after flame cut

Picard advice: For contours of category 3+4
as well as workpiece strengths of category 2+3+4

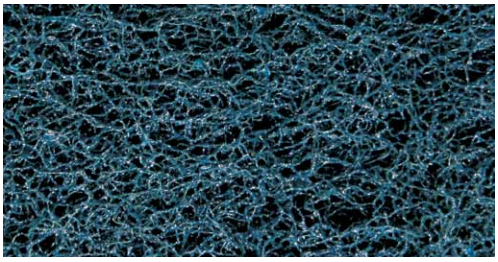


ABRASIVE FLEECE FAPI-DARKBLUE *WIDE & FLEXIBLE!*

Material: aluminium, steel, stainless steel

Application area: Deburring of steel, stainless steel or NE metals, satin finish of aluminum surfaces, high stock removal

Picard advice: For contours of category 3+4
as well as workpiece strengths of category 2+3+4



ABRASIVE FLEECE FAPI-BLACK *THE WATER-RESISTANT!*

Material: aluminium, steel

Application area: Deburring of steel, stainless steel and aluminum, also on wet deburring machines

Picard advice: For contours of category 3+4
as well as workpiece strengths of category 3+4

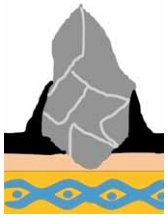
DEBURRING DISC - SERIES

VARIATIONS OF ABRASIVE CLOTH

BLACK

Optimal for the treatment of aluminium and plastic.

High hardness and high-cutting grain. Glossy surface.

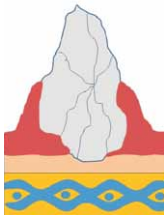


silicon carbide (SiC)

BROWN

Universal usable for a variety of applications in the metal treatment.

This grain type is characterized by hardness and toughness. Matt surface.



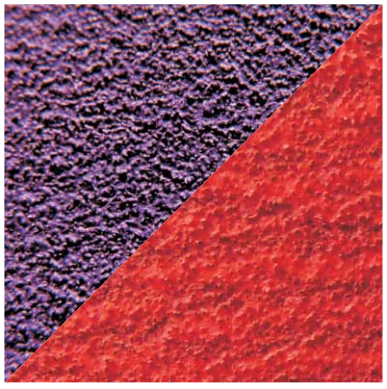
aluminium oxide (Al_2O_3)

BLUE

Good service life as well as high sanding capacity.

Abrasive grain with self-sharpening effect.

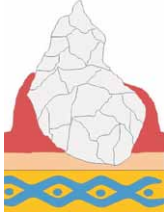
zirkonia alumina (ZA)



VIOLET/RED

Very high stock removal with cool running and high service life.

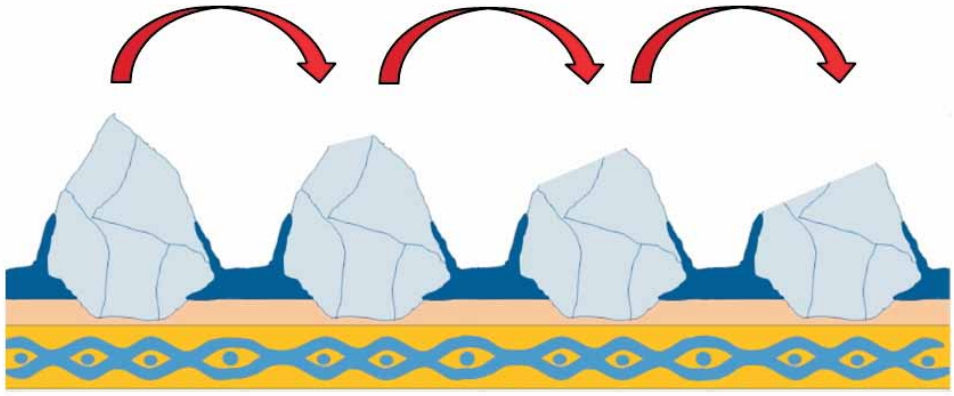
Especially suitable for stainless steel. Abrasive grain with self-sharpening effect.



ceramic grain (CER)

SELF-SHARPENING EFFECT ZIRKONIA ALUMINA

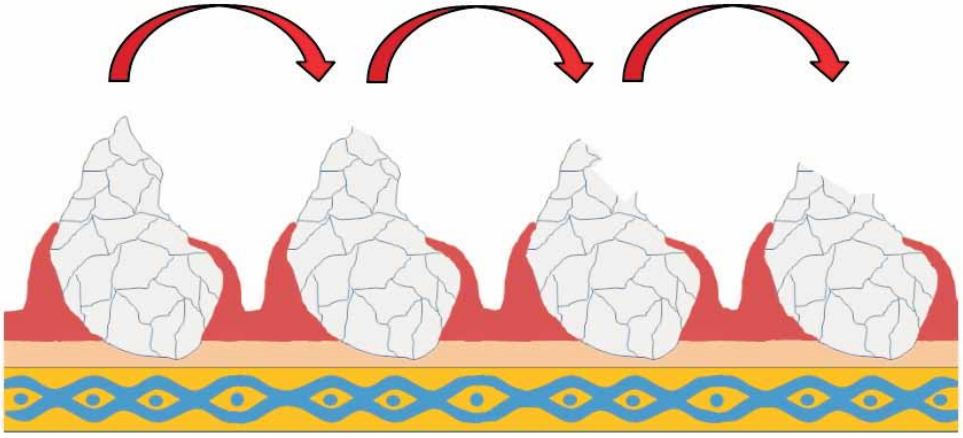
Zirkonia alumina is a mixture of corundum and zircon-oxide. The grain as well as the corundum has a wedge-shaped form. Due to the microcrystalline structure small pieces of the grain break continuously off and therefore build new sharp edges. The self-sharpening effect guarantees the abrasiveness of the abrasive grain. For high stock removal and medium contact pressure.



SELF-SHARPENING EFFECT CERAMIC GRAIN

The ceramic grain has a microcrystalline structure like zirconum-corundum and due to the break off small grain pieces also a self-sharpening effect.

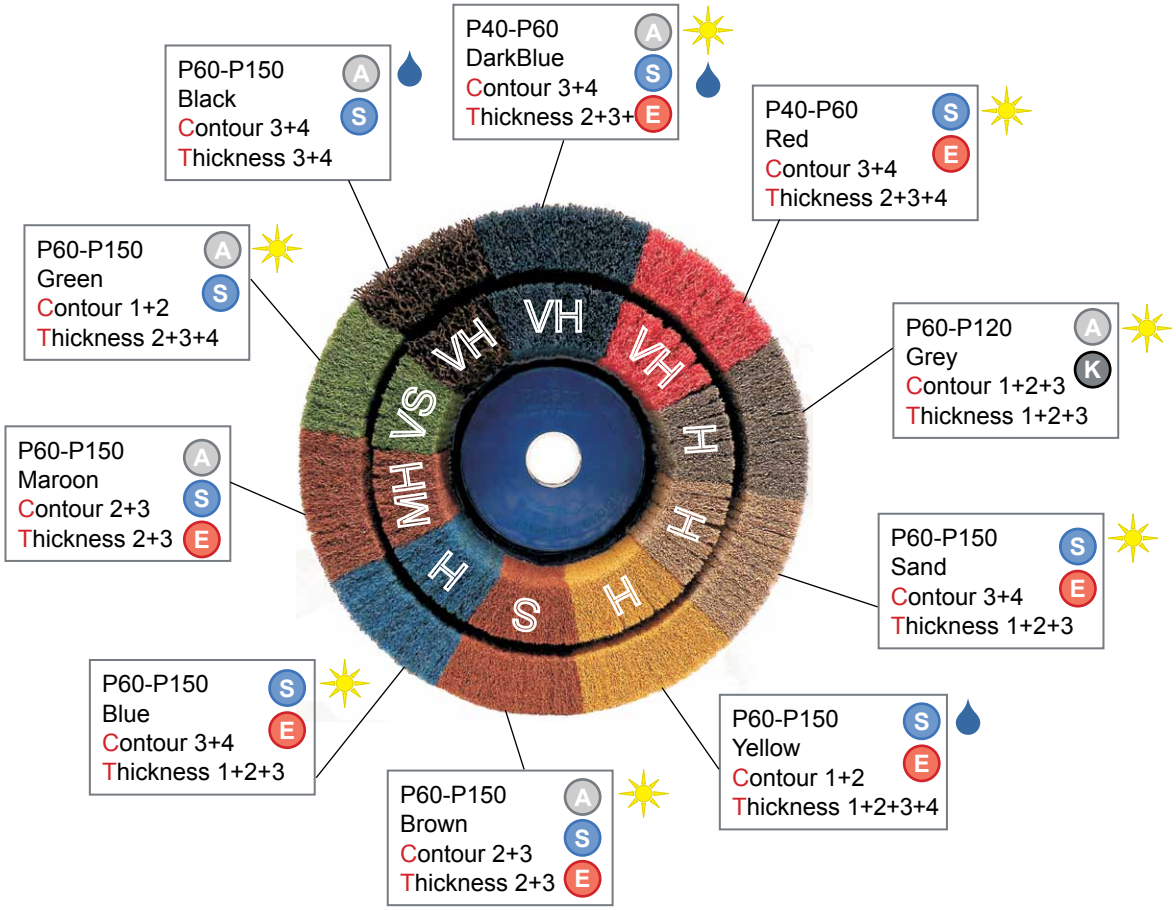
Compared to zirconium corundum the ceramic grain has a higher stability and is more pressure-resistant. The microcrystalline wear ensures continuously new sharp edges and thus a high and aggressive stock removal up to the final grain wear.



DEBURRING DISC - SERIES

FACING TYPES

The lifetime and deburring effiency is influenced decisively by the use of high-quality abrasive fleece and abrasive cloth qualities. Stated grain sizes (P40-P150) are recommendations which obtain in combination with the mentioned abrasive fleece an optimal deburring//edge rounding result.



SELECTION CRITERIA

- A aluminium
- S steel
- E stainless steel
- K plastic

material to be treated

Edge rounding (material-dependent)

1 = very slight
2 = slight
3 = medium
4 = strong
5 = very strong
6 = extremly strong

Possible grain types abrasive cloth

Al_2O_3 = aluminium oxide
SiC = silicon carbide
ZA = zirkonia alumina
CER = ceramic

possible grain types abrasive fleece

Al_2O_3 = aluminium oxide
SiC = silicon carbide
ZA = zirkonia alumina

fleece hardness

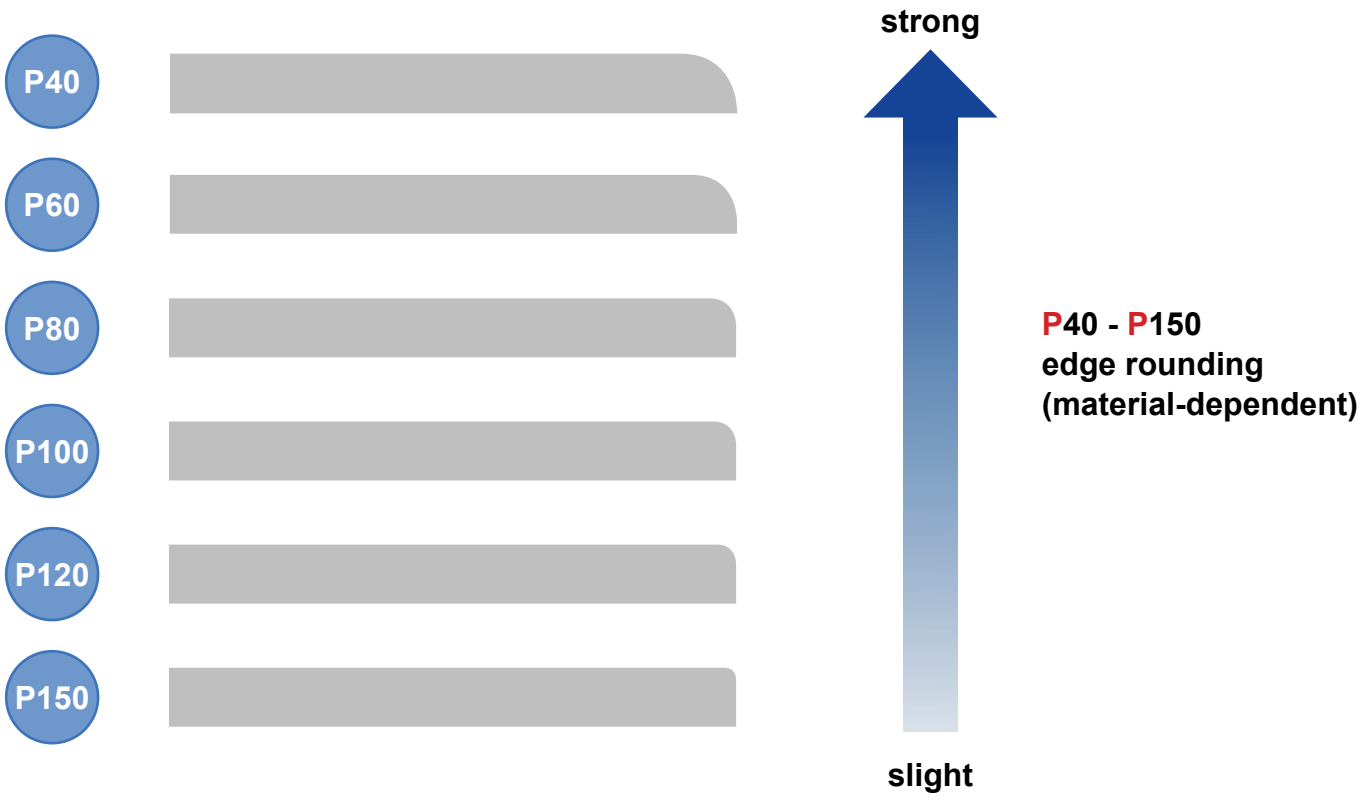
VS = very soft
S = soft
MH = medium hard
H = hard
VH = very hard

D = dry

W = wet

DEBURRING DISC - SERIES

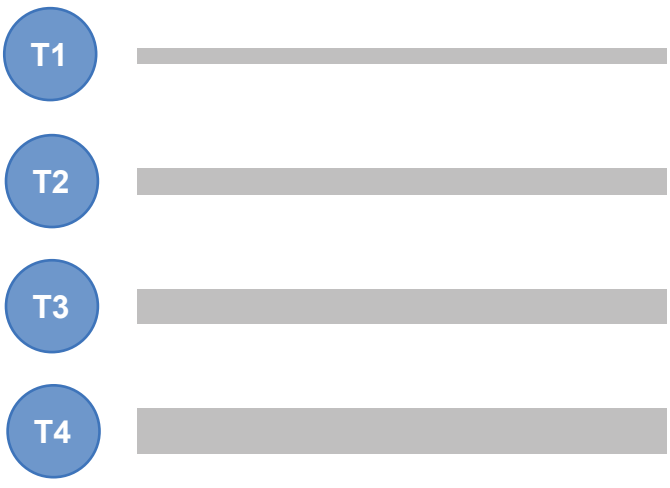
EDGE ROUNDING



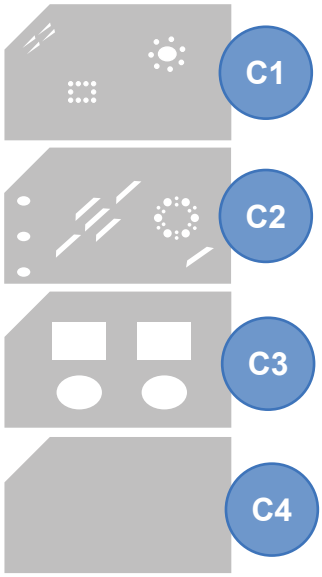
P40 - P150
edge rounding
(material-dependent)

WORKPIECE PARAMETER

workpiece thickness		workpiece contour	
1	until 1,5 mm	1	small cutouts and holes
2	1,5 mm up to 2,5 mm	2	small and medium cutouts and holes
3	2,5 mm up to 5,0 mm	3	large cutouts and holes
4	5,0 mm and more	4	only outside contour



Thickness workpiece



Contour workpiece

DEBURRING DISCS / DEBURRING SEGMENTS

The deburring discs FAPI-350 consist of a carrier disc of aluminum, faced with three rings of abrasive fleece and abrasive cloth in different sizes. They are used on automatic deburring machines of the company Timesavers B.V. (the Netherlands) and the high-density filling allows a significant stock removal in the deburring process.

Standard version:
3 rings (abrasive fleece Brown/grain size 80)
Further combinations of abrasive fleece qualities and grain sizes are possible!

Application area:
Deburring resp. edge rounding of sheet metal parts.

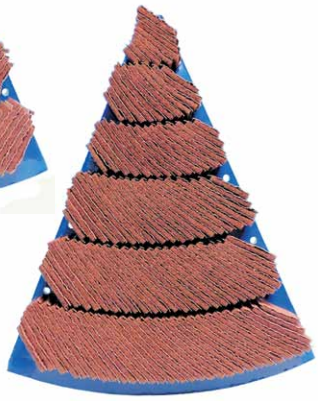
DEBURRING SEGMENTS FAPI-FLEX-SAT

Our deburring segments FAPI-FLEX-SAT with larger tool diameters are a further enhancement of our deburring discs FAPI-350.
These advanced deburring segments were developed in cooperation with the company Timesavers B.V. (the Nederlands). Fast, safe and clean deburring or edge rounding of sheet metal is no longer a problem with the use of these tools. Deburring segments FAPI-FLEX-SAT can also be adapted individually depending on the application.

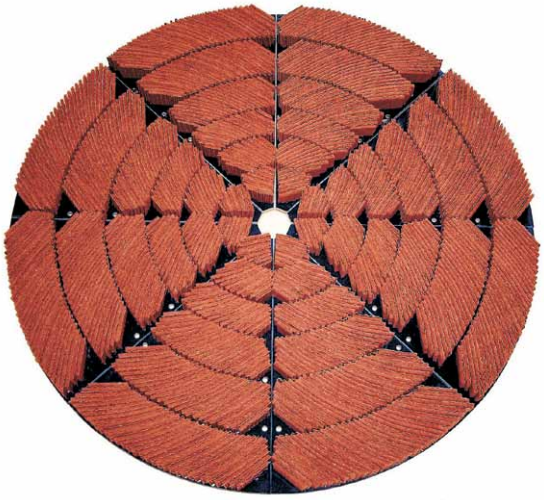
Dimensions: Ø 900 mm / Ø 1.200 mm / Ø 1.500 mm
Grain sizes: 80 / 100 / 120 / 150
Abrasive cloth: Green (very soft)
Brown (soft)
Blue (hard)
Sand (hard)
Black (extremly hard)

Application area:
Deburring resp. edge rounding of sheet metal parts.

right version



left version

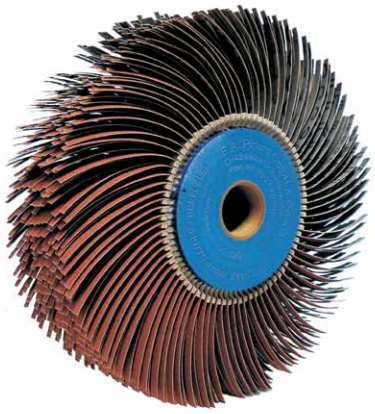


8 deburring segments FAPI-FLEX-SAT
assembled for the use on
a Timesavers-machine 22-series

DEBURRING WHEELS / ELASTIC GRINDING WHEELS

DEBURRING WHEELS FAPI-FLEX

The deburring wheels FAPI-FLEX are the perfect tool for the rounding resp. deburring of sheet metal parts. They can be used on hand-operated machines and automatic machines. Their flexible fillings are optimally adapted to the workpiece to be treated.



Dimensions:	Diameter:	150 to 400 mm
	Width:	30 to 150 mm
	Hole:	as per specification
Grain sizes:	60 / 80 / 100 / 120 / 150 / 180 / 240	
Applications:	Finishing of corrugated and curved workpieces, edge rounding of laser cut, water cut or plasma cut workpieces	

DEBURRING WHEELS FAPI-SW

The deburring wheels FAPI-SW with their high-elasticity filling are mainly used for the fine grinding on wavy and curved metal workpieces. They are also used frequently for the edge rounding on laser, water or plasma cut workpieces. The optimal adaptation of the filling ensures an excellent surface performance and optimal edge rounding on the workpiece to be treated.

Dimensions:	Diameter:	160 mm / 250 mm
	Width:	50 mm
	Hole:	as per specification
Grain sizes:	60 / 80 / 100 / 120 / 150 / 180 / 240	
Applications:	Finishing of corrugated and curved workpieces, edge rounding of laser cut, water cut or plasma cut workpieces	

ELASTIC GRINDING WHEELS FAPI-FEST

Die elastic grinding wheels FAPI-FEST are ideally suited for the sharpening, stripping, deburring and polishing of knives and splitting tools. The composition of the elastic grinding wheel is also important. The elastic grinding wheel FAPI-FEST is manufactured from open-pore rubber or polyurethane, which is uniformly interspersed with most different abrasive grain sizes.

Dimensions:	Diameter:	150 to 1.000 mm
	Width:	5 to 300 mm
	Hole:	as per specification
Grain types:	Regular aluminium oxide / silicon carbide / mixed aluminium oxide / White aluminium oxide	

Hardness grades, bondings and Grain sizes on request!

Applications: Sharpening, honing, deburring and polishing knives and splitting tools

CONTACT WHEELS

MAIN TASKS

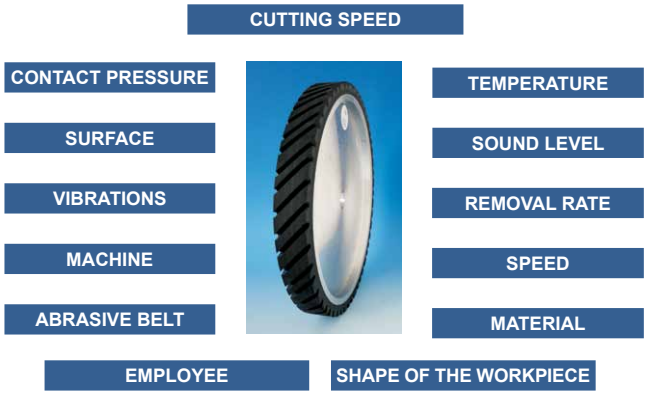
The choice of the contact wheel plays a **DECISIVE ROLE** in the quality, cost and duration of the belt grinding process.

Most important tasks:

- Contribute to the grinding result in terms of cost, quality and time
- Regulate temperature development during the process
- Support the abrasive belt in the grinding zone
- Reduce noise development
- Absorb and reduce vibrations which arise during the process

INFLUENCING FACTORS

When selecting the appropriate contact wheels for the belt grinding process, there are various process parameters which should be taken into account.



CONTACT WHEEL TYPES

Contact wheels can be divided into two types:

CONTACT WHEELS
full version

FAPI-PA – series
FAPI-VU – series
FAPI-V – series

CONTACT WHEELS
lamellae version

FAPI-KS/V – series
FAPI-VUS – series
FAPI-PUS – series
FAPI-BW – series

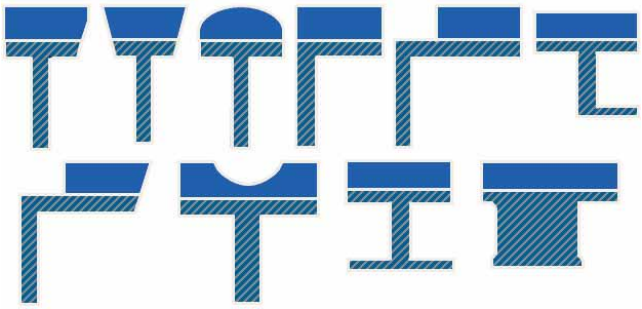
RECOVERING / RECYCLING

In most cases, worn contact wheels can be recovered, provided the used core is suitable and safe for reuse. This is a low-cost alternative to buying a new one.

SHAPES AND PROFILES

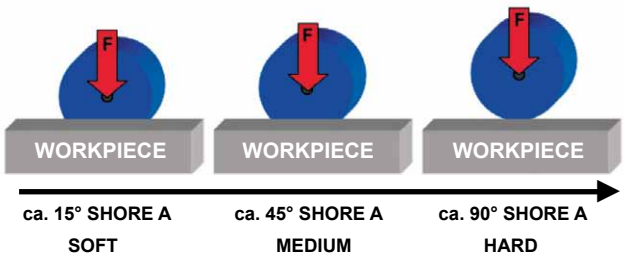
We can produce contact wheels in various shapes and profiles, depending on the application.

Examples:



HARDNESS

The hardness of the contact wheel is a decisive influencing factor in the grinding process. Hardness is measured in Shore (A) units. The higher the value, the harder the coating.

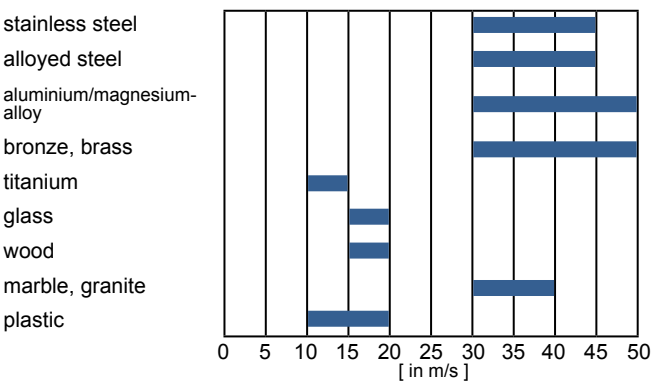


Rule of thumb for contact wheels:

Select the contact wheel for your belt grinding process as hard as possible and as soft as necessary.

CUTTING SPEED

For different materials we recommend using different cutting speeds. The values given below are averages. The optimal cutting speed for the process concerned has to be decided in practice according to the application.



CONTACT WHEELS FULL VERSION

CONTACT WHEELS FULL VERSION

The cores of our full-version contact wheels have cylindrical coatings. Due to the grooves in the coating, the contact wheels can be adapted precisely to the process for which they should be used.

CONTACT WHEELS
full version
FAPI-PA – series
FAPI-VU – series
FAPI-V – series

COATING

The standard materials we use to cover our full-version contact wheels, after which our ranges are named, are listed in the following table:

DESIGNATION	DESCRIPTION
PA	Rubber (NBR, EPDM, etc.)
VU	foamed up Vulkollan®
V	Vulkollan®

Our contact wheels can be recovered with other materials on request.

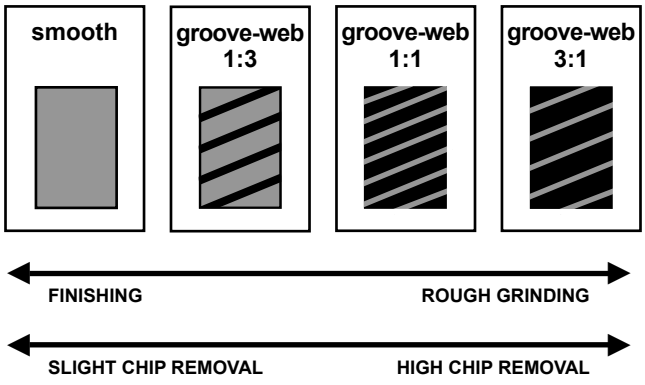
GROOVE-WEB RATIO

Grooves in the coating of a contact wheel change the geometric conditions in the contact zone between the abrasive belt and the workpiece.

The serrations reduce the contact length, so the contact wheel has a more aggressive effect.

Rule of thumb:

The wider the groove, the more aggressive the contact wheel will be.



STANDARD MILLINGS

Our standard millings on contact wheels are shown in the table below. Other millings (e.g. special Picard millings) are also available.

outer-Ø [in mm]	STANDARD MILLINGS		
	groove depth [in mm]	groove width [in mm]	web width [in mm]
100	10	6	10
125			
150			
175	10	6	12
200			
250	10	8	12
300			
350			
400			
450			

MILLING ANGLES

The milling angle of the grooves has a decisive influence on the grinding output and the resulting noise level during the belt grinding process.

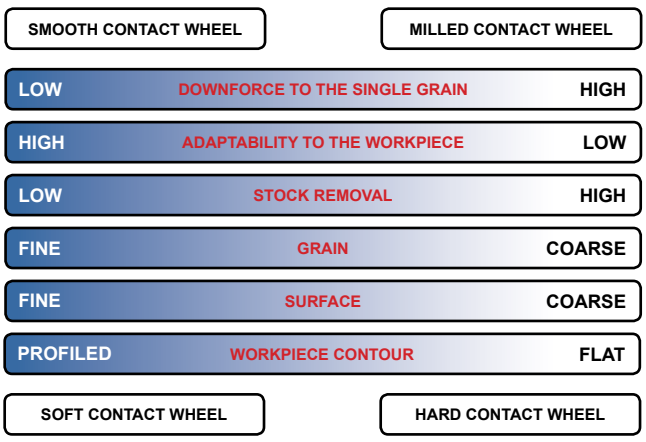
Removal rate

The higher the milling angle on the contact wheel, the lower the removal rate. Therefore, smooth contact wheels have a low removal rate.

Noise level

The higher the milling angle on the contact wheel, the lower the noise level during grinding. Therefore, smooth contact wheels are very quiet running.

SUMMARY



Vulkollan® = registered trade mark of the Covestro-Group

CONTACT WHEELS FAPI-PA

PRODUCT DESCRIPTION FAPI-PA – SERIES

The contact wheels of the FAPI-PA series are covered only with NBR (formerly: PAra rubber coating). The NBR coated contact wheels are in practice often simply called rubber coated contact wheels or rubber contact wheels.

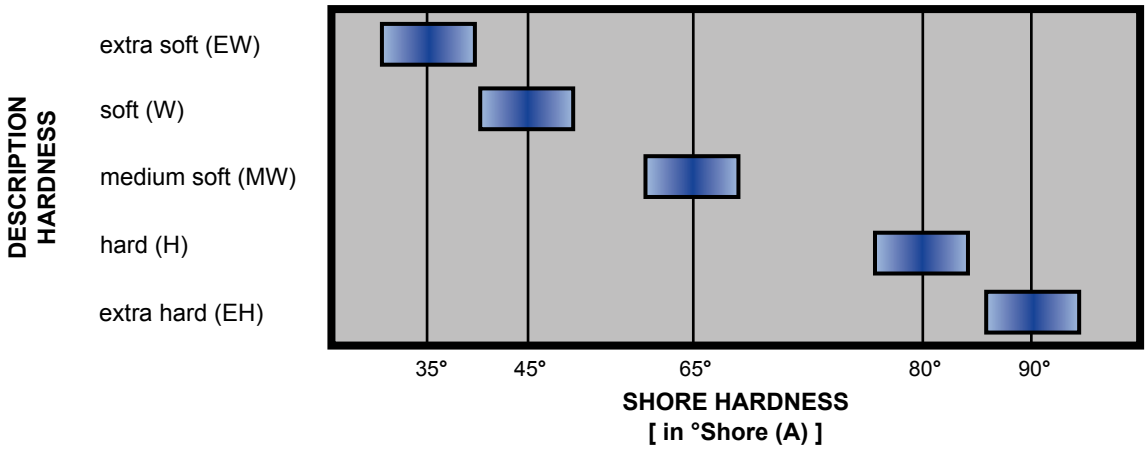
Advantages of contact wheels with this structure:

- Maximum service life
- Wear-resistance
- Oil-resistance
- Grease-resistance
- Emulsion-resistance

Because of these outstanding properties, our contact wheels of the FAPI-PA series have proven themselves in the market over decades.

COATING HARDNESS FAPI-PA – SERIES

The NBR rubber coating is available in five levels of hardness, ranging from extra soft with 35° Shore (A) up to extra hard with 90° Shore (A). Selecting the right contact wheel hardness always depends on the individual application.



Coating height:

While a coating height of 20 mm has established itself as the standard, the coating height can be varied as desired. The higher the coating, the more elastic and therefore the softer the contact wheel surface will be.

RECOMMENDED APPLICATIONS

Contact wheels FAPI-PA are the standard contact wheels often found on machines. Because of their universal usage options, almost all machine manufacturers supply their machines with contact wheels from this series.

Grinding operation:	Cylindrical grinding, surface grinding, heavy-duty grinding and roughing	
Grinding type:	Wet and dry grinding	
Used in:	Automatic grinding, portable machines, pedestal grinder/backstand, robotic grinding	
Cutting speeds:	maximal	50 m/s
	recommended	36 m/s
Areas of use:	Pipe manufacturing, aerospace industry, foundries, etc	

CONTACT WHEELS FAPI-PA

CONTACT WHEEL FAPI-PA SMOOTH TYPE

Structure: As the name suggests, the aluminium core of the contact wheel FAPI-PA SMOOTH is coated with a smooth NBR coating. The coating height can be varied depending on the application.

Dimensions:
Diameter: 75 to 450 mm
Width: 20 to 200 mm
Hole: as per specification
- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-PA MILLED TYPE

Structure: The contact wheel FAPI-PA MILLED is an enhancement of the smooth type. It has grooves milled into the NBR coating. The grooves can be cut into the coating in various widths, depths and angles.

Dimensions:
Diameter: 75 to 450 mm
Width: 20 to 200 mm
Hole: as per specification
- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-PA MILLED FREQUENCY DAMPED TYPE

Structure: The contact wheel FAPI-PA MILLED FREQUENCY DAMPED is a further development of the milled type. It has grooves cut into the NBR coating in our specially developed ratio of groove width to groove depth to web width. This results in significant frequency attenuation and a reduction of the sound level up to 5 dB(A) during the belt grinding process.

Dimensions:
Diameter: 75 to 450 mm
Width: 20 to 200 mm
Hole: as per specification
- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

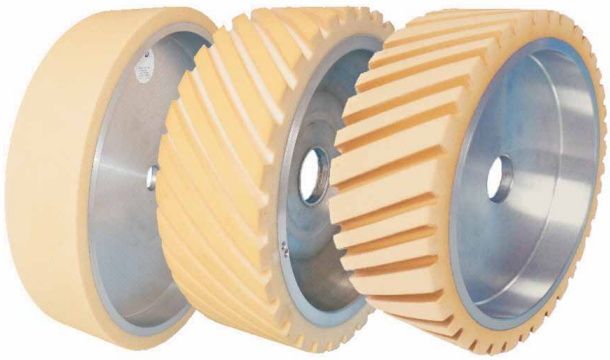
Applications: Metal working, wood processing, plastic processing, stone processing

All rights reserved!

CONTACT WHEELS FAPI-VU

PRODUCT DESCRIPTION FAPI-VU – SERIES

The contact wheels of the FAPI-VU series are coated only with foamed up Vulkollan®. It`s a matter of cellular Vulkollan®, a polyurethane foamed with water which has very high dynamic properties. Foamed up Vulkollan® can be identified by its slightly yellowish colour.



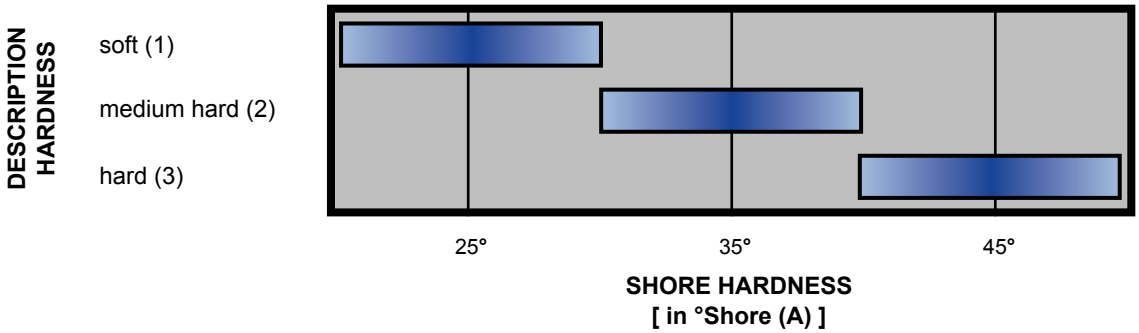
Advantages of contact wheels with a coating of foamed up Vulkollan®:

- Highly elastic (adaptable)
- Wear-resistance
- Oil-resistance
- Grease-resistance
- Acid-resistance

Because of these outstanding properties, our contact wheels of the FAPI-VU series have proven themselves in the market over decades

COATING HARDNESS FAPI-VU – SERIES

The hardness of the foamed up Vulkollan® coating can be divided into three levels ranging from a soft foamed up Vulkollan® coating with 25° Shore (A) to a hard foamed up Vulkollan® coating with 45° Shore (A). Selecting the right contact wheel hardness always depends on the individual application.



Coating height:

While a coating height of 20 mm has established itself as the standard, the coating height can be varied as desired. The higher the coating, the more elastic and therefore the softer the contact wheel coating will be.

RECOMMENDED APPLICATIONS

Contact wheels of the FAPI-VU series are especially suitable for achieving a fine finish on (heavily) rounded and profiled parts. In addition, there is almost no fatiguing of the contact wheel when used correctly, even after long and intensive use.

Grinding operation:	Cylindrical grinding, surface grinding, profile grinding	
Grinding type:	Dry grinding	
Used in:	Automatic grinding, portable machines, pedestal grinder//backstand, robotic grinding	
Cutting speeds:	maximal	36 m/s
	recommended	36 m/s
Areas of use:	Fittings industry, medical technology, aerospace industry, car industry, etc.	

Vulkollan® = registered trade mark of the Covestro-Group

CONTACT WHEELS FAPI-VU

CONTACT WHEEL FAPI-VU SMOOTH TYPE

Structure: As the name suggests, the aluminium core of the contact wheel FAPI-VU SMOOTH has a coating of smooth foamed up Vulkollan®. The coating height can be varied depending on the application.

Dimensions:
Diameter: 75 to 450 mm
Width: 20 to 200 mm
Hole: as per specification

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-VU MILLED TYPE

Structure: The contact wheel FAPI-PA MILLED is an enhancement of the smooth type. It has grooves milled into the coating of foamed up Vulkollan®. The grooves can be cut into the coating in various widths, depths and angles.

Dimensions:
Diameter: 75 to 450 mm
Width: 20 to 200 mm
Hole: as per specification

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-VU MILLED FREQUENCY DAMPED TYPE

Structure: The contact wheel FAPI-VU MILLED FREQUENCY DAMPED is a further development of the milled type. It has grooves cut into the coating of foamed up Vulkollan® in our specially developed ratio of groove width to groove depth to web width. This results in significant frequency attenuation and a reduction of the sound level up to 5 dB(A) during the belt grinding process.

Dimensions:
Diameter: 75 to 450 mm
Width: 20 to 200 mm
Hole: as per specification

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

All rights reserved!

Vulkollan® = registered trade mark of the Covestro-Group

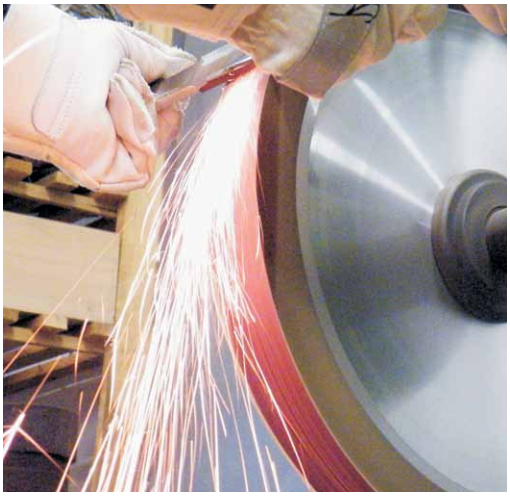
CONTACT WHEELS

OVERVIEW CONTACT WHEEL – SERIES

FAPI-PA – series

FAPI-BW – series

FAPI-VU – series



FAPI-PUS – series

FAPI-KS/V – series

FAPI-VUS – series

Picard tip:
Especially when grinding at contact wheels the factor "contact wheel" should not be underrated. With the choose of the suitable contact wheel a much better performance up to 40% more may be achieved in the belt grinding process.

CONTACT WHEELS LAMELLAE VERSION

CONTACT WHEELS LAMELLAE VERSION

Our contact wheels in lamellae version have cores that are covered with individual lamellae. By varying the hardness of the lamellae, the contact wheels can be adapted precisely to the process for which they should be used.

CONTACT WHEELS
lamellae version
FAPI-KS/V – series
FAPI-VUS – series
FAPI-PUS – series
FAPI-BW – series

COATING

The standard materials we use to cover our contact wheels in lamellae version are listed in the following table:

DESIGNATION	DESCRIPTION
V	Vulkollan®
VUS	foamed up Vulkollan®
PUS	Polyurethan foam
BW	Cotton
KS	Plastic foam

Our contact wheels can be recovered with other materials on request.

LAMELLAE POSITION

Different lamellae positions and hardnesses on contact wheels change the geometric conditions at the contact zone between the abrasive belt and the workpiece.
A kind of "serration" is achieved on the contact wheel, as in the full-wheel version. However, because this "serration" is made of lamellae, it is more flexible.

ATTACK ANGLE

The attack angle of the lamellae has a decisive influence on the removal rate and the resulting noise level during the belt grinding process.

Removal rate

The higher the declination angle of the lamlellae on the contact wheel, the lower the removal rate.

Noise level

The higher the attack angle of the lamellae at the contact wheel, the lower the noise level during grinding.

SUMMARY

DENSE POSITION OF THE LAMELLAE		LOOSE POSITION OF THE LAMELLAE
LOW	DONWFORCE TO THE SINGLE GRAIN	HIGH
HIGH	ADAPTABILITY TO THE WORKPIECE	LOW
LOW	STOCK REMOVAL	HIGH
FINE	GRAIN	COARSE
FINE	SURFACE	COARSE
PROFILED	WORKPIECE CONTOUR	FLAT
SOFT CONTACT WHEEL		HARD CONTACT WHEEL

Vulkollan® = registered trade mark of the Covestro-Group

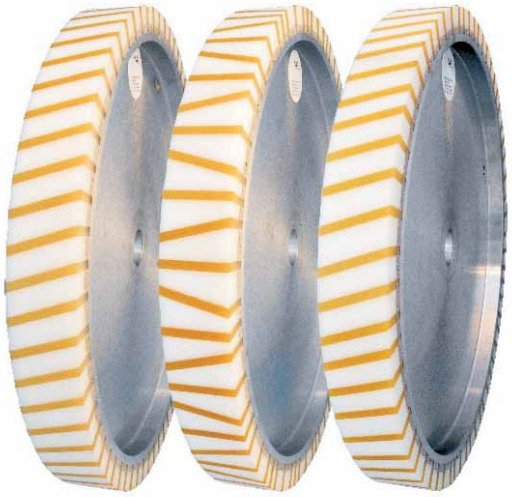
CONTACT WHEELS FAPI-KS/V

PRODUCT DESCRIPTION FAPI-KS/V – SERIES

Because of their Vulkollan® and plastic foam lamellae, our contact wheels of the FAPI-KS/V series are extremely aggressive.

Advantages of contact wheels with this structure:

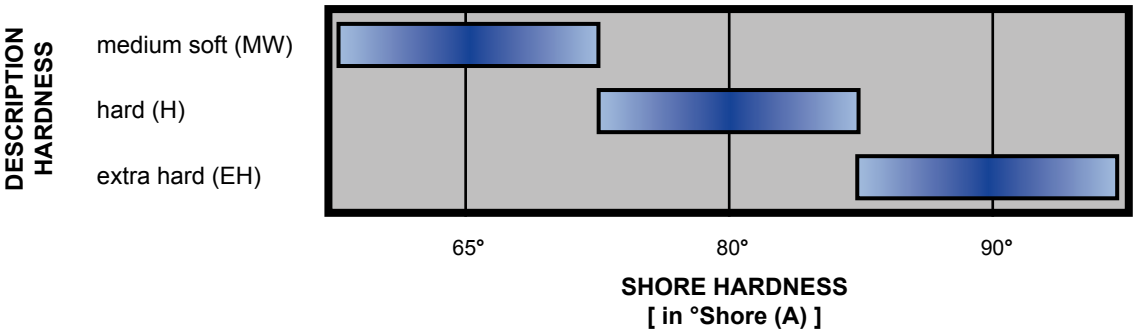
- Maximum removal rate
- Plastic lamellae provide optimum cooling of the abrasive belt
- Wear-resistance
- Oil-resistance
- Grease-resistance



Because of these outstanding properties, our contact wheels of the FAPI-KS/V series have proven themselves in the market over decades.

COATING HARDNESS FAPI-KS/V – SERIES

The Vulkollan® lamellae are available in three hardness levels, ranging from a medium soft Vulkollan® lamella with 60° Shore (A) to an extra hard Vulkollan® lamella with 90° Shore (A). Selecting the right lamella hardness always depends on the individual application.



Coating height:

The height of the coating and the length of the Vulkollan® and plastic foam lamellae can be varied depending on the application (standard: 25 mm). The longer the lamellae are, the less rigid the material becomes, which in turn reduces the aggressiveness of the contact wheel.

RECOMMENDED APPLICATIONS

The contact wheel FAPI-KS/V is used in particular when high abrasion is required in a short time (for example for surface grinding). But even lightly rounded workpieces can be ground without difficulty using this contact wheel.

Grinding operation:	Cylindrical grinding, surface grinding, profile grinding	
Grinding type:	Dry grinding	
Used in:	Automatic grinding, portable machines, pedestal polisher//backstand, robotic grinding	
Cutting speeds:	maximal	50 m/s
	recommended	36 m/s
Areas of use:	Foundries, fittings industry, aerospace industry, etc.	

Vulkollan® = registered trade mark of the Covestro-Group

CONTACT WHEELS FAPI-KS/V

CONTACT WHEEL FAPI-KS/V STANDARD TYPE

Structure: Vulkollan® and plastic foam lamellae are attached alternately to the aluminium core of the contact wheel FAPI-KS/V. While the width of the Vulkollan® lamellae should be kept constant, the width of the plastic foam lamellae can be varied. The wider the plastic foam lamella, the more aggressive the contact wheel will be.

Dimensions:
Diameter: 150 to 450 mm
Width: 20 to 200 mm
Hole: as per specification
- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-KS/V SPECIAL TYPE

Structure: Uniformly wide Vulkollan® lamellae are attached to the aluminium core of the contact wheel FAPI-KS/V SPECIAL at alternating angles with plastic foam lamellae attached in the spaces between them. The alternating angles of the lamellae result in a longer service life for the contact wheel and optimum utilisation of the abrasive belt.

Dimensions:
Diameter: 150 to 450 mm
Width: 20 to 200 mm
Hole: as per specification
- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-KS/V FREQUENCY DAMPED TYPE

Structure: Uniformly wide Vulkollan® lamellae are attached to the aluminium core of the contact wheel FAPI-KS/V FREQUENCY DAMPED at well defined distances, with plastic foam lamellae attached in the spaces between them. This results in significant frequency attenuation and a reduction of the sound level up to 5 dB(A) during the belt grinding process..

Dimensions:
Diameter: 150 to 450 mm
Width: 20 to 200 mm
Hole: as per specification
- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

All rights reserved!

Vulkollan® = registered trade mark of the Covestro-Group

CONTACT WHEELS FAPI-VUS

PRODUCT DESCRIPTION FAPI-VUS – SERIES

Our contact wheels of the FAPI-VUS series are coated with foamed up Vulkollan® lamellae. Combinations with other lamellae made of different materials are possible, so contact wheels FAPI-VUS can be adapted to a wide range of belt grinding processes.

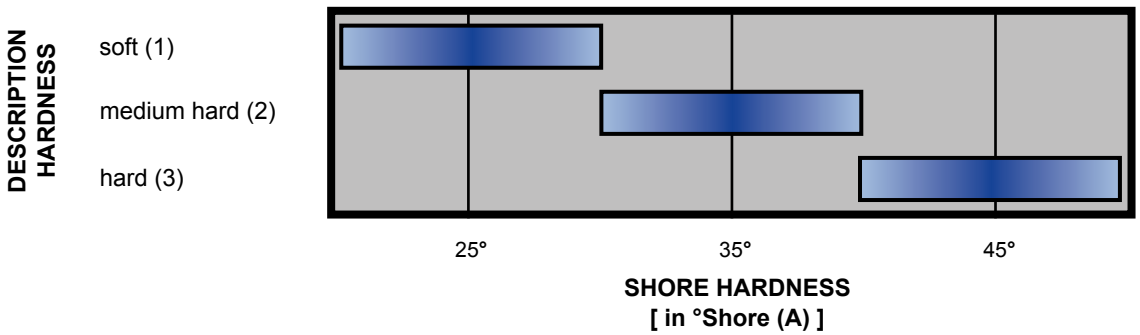
Advantages of contact wheels with lamellae of foamed up Vulkollan®:

- Highly elastic (adaptable)
- Wear-resistance
- Oil-resistance
- Grease-resistance

Because of these outstanding properties, our contact wheels of the FAPI-VUS series have proven themselves in the market over decades.

COATING HARDNESS FAPI-VUS – SERIES

The foamed up Vulkollan® lamella coating is available in three hardness levels, ranging from a soft coating of foamed up Vulkollan® lamella with 25° Shore (A) to a hard coating of foamed up Vulkollan® lamella with 45° Shore (A). Selecting the right lamella hardness always depends on the individual application



Coating height:

The height of the coating and the length of the foamed up Vulkollan® lamellae can be varied depending on the application (standard: 20 mm or 35 mm). The longer lamellae of the foamed up Vulkollan®, the softer/more adaptable the contact wheel will be, with the same shore hardness rating

RECOMMENDED APPLICATIONS

Contact wheels FAPI-VUS are used in particular to achieve a high-quality finish on heavily profiled or heavily rounded workpieces in a very short time.

Grinding operation:	Cylindrical grinding, profile grinding	
Grinding type:	Dry grinding	
Used in:	Automatic grinding, portable machines, pedestal grinder/backstand, robotic grinding	
Cutting speeds:	maximal	36 m/s
	recommended	36 m/s
Areas of use:	Fittings industry, car industry, aerospace industry, foundries, etc.	

Vulkollan® = registered trade mark of the Covestro-Group

CONTACT WHEELS FAPI-VUS

CONTACT WHEEL FAPI-VUS DENSE TYPE

Structure: The aluminium core of the contact wheel FAPI-VUS DENSE is covered with dense, adjoining lamellae of foamed up Vulkollan®.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	20 mm / 35 mm / as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-VUS OPEN TYPE

Structure: The contact wheel FAPI-VUS OPEN is an enhancement of the dense type. The aluminium core of this wheel is coated with alternately long and short lamellae of foamed up Vulkollan® .

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	20 mm / 35 mm / as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-VUS/KS

Structure: The contact wheel FAPI-VUS/KS is a type coated with lamellae of foamed up Vulkollan® and plastic foam lamellae. The different material densities result in the heat generated during the belt grinding process being drawn off very effectively.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-VUS/RE

Structure: The contact wheel FAPI-VUS/RE is an alternative to the FAPI-VUS/KS. The different material densities of the alternately arranged lamellae of foamed up Vulkollan® and laminated Moltopren foam lamellae result in the heat generated during the belt grinding process being drawn off very effectively.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look at page 22

Applications: Metal working, wood processing, plastic processing, stone processing

Vulkollan® = registered trade mark of the Covestro-Group

CONTACT WHEELS FAPI-PUS

PRODUCT DESCRIPTION FAPI-PUS – SERIES

Our contact wheels of the FAPI-PUS series are coated with lamellae made of polyurethane foam. Combinations with other lamellae made of different materials are possible, so contact wheels FAPI-PUS can be adapted to a wide range of belt grinding processes.

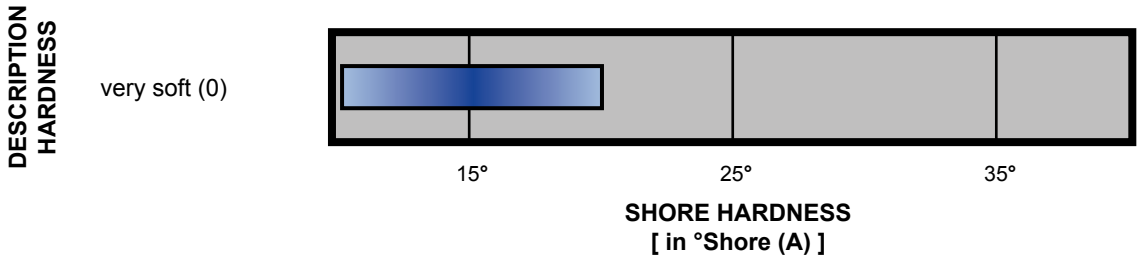
Advantages of contact wheels with lamellae made of polyurethane foam:

- Highly elastic (adaptable)
- Wear-resistance
- Oil-resistance
- Grease-resistance

Because of these outstanding properties, our contact wheels of the FAPI-PUS series have proven themselves in the market over decades.

COATING HARDNESS FAPI-PUS – SERIES

Our polyurethane foam lamellae are available in only one hardness of approx. 15° Shore (A). Contact wheels of the FAPI-PUS series are used if the hardness spectrum of the FAPI-VUS series is inadequate.



Coating height:

The height of the coating and/or the length of the polyurethane foam lamellae can be varied depending on the application (standard: 35 mm). The longer the polyurethane foam lamellae, the softer/more adaptable the contact wheel will be.

RECOMMENDED APPLICATIONS

Our contact wheels FAPI-PUS are used in particular to achieve a high-quality finish on heavily profiled or heavily rounded parts in a very short time.

Grinding operation:	Cylindrical grinding, profile grinding	
Grinding type:	Dry grinding	
Used in:	Automatic grinding, portable machines, pedestal grinder/backstand, robotic grinding	
Cutting speeds:	maximal	36 m/s
	recommended	36 m/s
Areas of use:	Fittings industry, medical technology, car industry, aerospace industry, foundries, etc.	

CONTACT WHEELS FAPI-PUS

CONTACT WHEEL FAPI-PUS DENSE TYPE

Structure: The aluminium core of the contact wheel FAPI-PUS DENSE is coated with dense, adjoining polyurethane foam lamellae.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	35 mm / as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-PUS OPEN TYPE

Structure: The contact wheel FAPI-VUS OPEN is an enhancement of the dense type. On the open wheel, the aluminium core is coated with alternating long and short polyurethane foam lamellae.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	35 mm / as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-PUS/KS

Structure: The contact wheel FAPI-PUS/KS is coated with polyurethane foam and plastic foam lamellae. The different material densities result in the heat generated during the belt grinding process being drawn off very effectively.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look page 22

Applications: Metal working, wood processing, plastic processing, stone processing

CONTACT WHEEL FAPI-PUS/KS FREQUENCY DAMPED TYPE

Structure: The contact wheel FAPI-PUS/KS FREQUENCY DAMPED is a further development of the contact wheel FAPI-PUS/KS. Due to the special lamella spacing a significant frequency attenuation and a reduction of the sound level up to 5 dB(A) is achieved during the belt grinding process.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	as per specification
Hole:	as per specification

- Further dimensions on request! -

Core shapes: as per specification, have a look page 22

Applications: Metal working, wood processing, plastic processing, stone processing

All rights reserved!

CONTACT WHEELS FAPI-BW

PRODUCT DESCRIPTION FAPI-BW – SERIES

With their cotton cloth lamellae, contact wheels of the FAPI-BW series are very well suited for fine sanding.

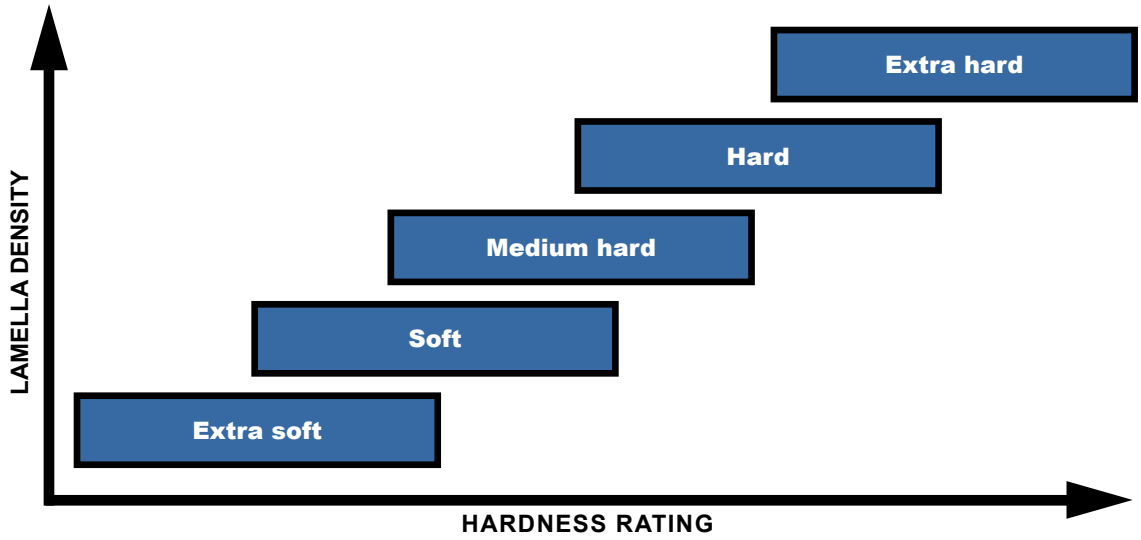
Advantages of contact wheels with cotton cloth lamellae:

- Highly elastic (adaptable)
- Wear-resistance

Because of these outstanding properties, our contact wheels of the FAPI-BW series have proven themselves in the market over many decades.

COATING HARDNESS FAPI-BW – SERIES

Contact wheels with cotton cloth lamellae can be supplied in several levels of surface hardness, ranging from “extra soft” to “extra hard”. The hardness of the contact wheel FAPI-BW is achieved with the number of cotton cloth lamellae around the contact wheel’s circumference, i.e. the density of the cotton cloth lamellae. Unfortunately it is not possible to give a precise value in Shore (A).



Coating height:

The height of the coating and/or the length of the cotton lamellae can be varied depending on the application (standard: 35 mm). The longer the cotton lamellae, the softer/more adaptable the contact wheel will be.

RECOMMENDED APPLICATIONS

The contact wheel FAPI-BW is used for heavily profiled or heavily rounded parts that are ground manually in a dry process.

Grinding operation:	Cylindrical grinding, profile grinding	
Grinding type:	Dry grinding	
Used in:	Automatic grinding, portable machines, pedestal grinder//backstand, robotic grinding	
Cutting speeds:	maximal	36 m/s
	recommended	36 m/s
Areas of use:	Fittings industry, medical technology, car industry, aerospace industry, etc.	

CONTACT WHEELS FAPI-BW

CONTACT WHEEL FAPI-BW

Structure: The contact wheel FAPI-BW is made of cotton cloth lamellae attached around an aluminium core. Predominantly, the contact wheel FAPI-BW with a softer coating contributes significantly to keeping the abrasive belt cool, because the spaces between the lamellae draw off the heat generated during belt grinding.

Dimensions:

Diameter:	75 to 450 mm
Width:	20 to 200 mm
Lamella height:	35 mm / as per specification
Hole:	as per specification

- Further dimensions on request! -

Applications: Metal working, wood processing, plastic processing, stone processing

RECOVERING OF CONTACT WHEELS

In most cases, worn contact wheels can be recovered, provided the used core is suitable and safe for reuse. This is a low-cost alternative to buying a new one.

Apart from single-use cores, we can recover all types of contact wheel cores. For the new coating, you can select a coating that suits your application best from our contact wheel series:

FAPI-PA coating
FAPI-VU coating
FAPI-KS/V coating
FAPI-VUS coating
FAPI-PUS coating
FAPI-BW coating

Contact wheel with an old coating made of lamellae of foamed Vulkollan®

contact wheel core after the first turn off process

contact wheel core after the final turn off - ready for new coating

Vulkollan® = registered trade mark of the Covestro-Group

ROLLS AND ROLLERS

PRODUCT FEATURES

We produce elastic rolls and rollers for technical applications with a wide range of coatings, geometries, edges and profiles. Our rolls and rollers have been tried and tested in many different uses and industries over several decades.

COATINGS

Our roll and roller coatings meet a wide range of demands reliably, precisely and, of course, economically. We offer a large selection of coatings:

DESIGNATION ASTM	ENGLISH DESIGNATION ACC. TO ISO
NBR	Nitrile butadiene rubber
NR	Natural rubber
SBR	Styrene butandiene rubber
EPDM	Ethylene propylene terpolymers
CR	Chloroprene rubber
CSM	Chlorsulphonated polyethylene
MQ	Silicone rubber
V	Vulkollan®
VU	foamed up Vulkollan®

GEOMETRIES

We produce rolls and rollers in the following geometries:

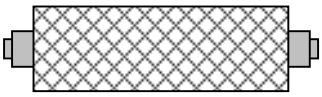
GEOMETRY	SKETCH
cylindrical	
crowned (convex and concave)	
trapezoidal	
conical	

EDGES

EDGES	SKETCH
right-angled	
stepped	
rounded	
bevelled	

PROFILES

The profiles listed below are just a small selection of our profiles. We can produce glued and painted profiles, spiral grooves radiating from the centre, special profiles, and so on.

PROFILES	SKETCH
Spiral grooves	
Axial slits / axial grooves	
Waffle profiles	
Radial recesses	

EXAMPLES OF APPLICATIONS

Printing industry - films and foils industry - metal industry - textile industry - wood and furniture industry - paper industry - food industry - packaging industry - PCB industry

Picard tip:

With our many years of experience in belt grinding, we have big know-how in producing the very best contact rollers for wide belt grinding processes.

Vulkollan® = registered trade mark of the Covestro-Group

CONTACT ROLLS / FOLDING CONTACT WHEELS

CONTACT ROLLS FAPI-PA M8 AND FAPI-VU M8

The contact rolls FAPI-PA M8 and FAPI-VU M8 can be covered with rubber or foamed up Vulkollan®. This coating can be supplied ia a smooth or grooved version. All contact rolls FAPI-PA M8 and FAPI-VU M8 are equipped with two high-quality ball bearings and a M8 threaded bolt for mounting on the machines.

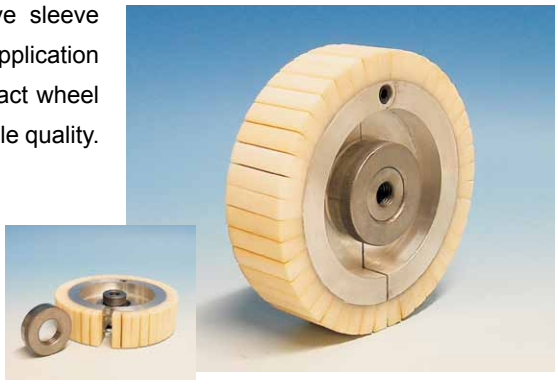
Dimensions: Diameter: 30 mm / 50 mm
Width: 30 mm / 50 mm
- Further dimensions on request! -
Thread: M8

Coating hardness: FAPI-PA M8: ca. 45° / ca. 65° / ca. 80° / ca. 90° Shore (A)
FAPI-VU M8: 25° / 35° / 45° Shore (A)

Applications: Manual belt grinders, automation units, etc

FOLDING CONTACT WHEELS FAPI-METALL

Folding contact wheels FAPI-METALL are an excellent alternative to abrasive sleeve holders, particularly in container construction. High-quality design, cost-effective application with the use of abrasive rolls and easy handling are the criteria the folding contact wheel FAPI-METALL meets in order to satisfy customers' demands for the highest possible quality.



Dimensions: Diameter: 150 mm
Width: 40 mm
Thread: M14 / 5/8"

Model: **FAPI-METALL VUG**
The folding contact wheel FAPI-METALL VUG is covered with a slitted coating made of foamed up Vulkollan®.

FAPI-METALL KS/V
The folding contact wheel FAPI-METALL KS/V is coated with lamellae made of Vulkollan® and plastic foam. Compared to the type FAPI-METALL VUG she is harder and therefore more aggressive in stock removal

Applications: Metal working, container construction, etc.

FOLDING CONTACT ROLLERS FAPI-HOLZ

Folding contact rollers FAPI-HOLZ are an excellent alternative to abrasive sleeve holders. High-quality design, cost-effective application with the use of abrasive rolls and easy handling are the criteria the folding contact roller FAPI-HOLZ meets in order to satisfy customers' demands for the highest possible quality.

Dimensions: Diameter: 100 mm
Width: 100 mm
Thread: M16 / 5/8"

Applications: Metal working, container construction, orthopaedics, wood processing, etc.

Vulkollan® = registered trade mark of the Covestro-Group

RETURN PULLEYS FAPI-SWITCH

PRODUCT FEATURES FAPI-SWITCH – SERIES

With our FAPI-SWITCH series, we have succeeded in designing return pulleys in a light system format that are very quiet and smooth running and that set new standards in belt grinding. Due to their flexibility - also with respect to a wide range of dimensions - all brands of belt grinding machines can be equipped with these return pulleys.

Picard tip:

Save money! Return pulleys are often used without a coating - i.e. with the pure metal only. This often causes problems with the grinding belt guide after a certain period of use. When the grinding belt is deflected on the return pulley, the grinding belt grain presses through the grinding belt base and on to the surface of the return pulley. After some time the running track of the grinding belt forms a track on the metal body of the return pulley. A worn return pulley can no longer guide the abrasive belt properly. It is for this reason that we always recommend using an ultra wear-resistant coating on the return pulley.

PRODUCT ADVANTAGES FAPI-SWITCH – SERIES

- **Quiet and smooth running**

  The intelligent bearing on the return pulley FAPI-SWITCH forms its "heart", ensuring that the roller is as quiet and as smooth running as possible during the belt grinding process. Friction between the return pulley and its axle is minimised.

- **System configuration**

  The components of the return pulley are very easy to screw together.

- **Light design**

  The return pulley FAPI-SWITCH is produced exclusively from high-quality aluminium, which reduces the weight of the module "return pulley" quite considerably.

- **Highly abrasion-resistant coatings**

  We offer a choice of three different coating options (Vulkollan®, NBR or LongLife).

- **Multiple options for recovering**

  The return pulleys of the FAPI-SWITCH series can be recovered multiple times.

- **Optimum grinding belt guidance**

  To guarantee that the abrasive belt is properly guided during grinding, the coating of the return pulleys FAPI-SWITCH is spherical. If the return pulley FAPI-SWITCH is used for wet grinding, it can be grooved. This entirely eliminates the risk of the belt aqua-planing on the return pulley.

- **Wide range of dimensions**

  Due to their flexibility - also with respect to a wide range of dimensions - almost all brands of belt grinding machines can be equipped with these return pulleys.

Vulkollan® = registered trade mark of the Covestro-Group

RETURN PULLEYS FAPI-SWITCH

RETURN PULLEYS FAPI-SWITCH (STANDARD TYPE WITH VULKOLLAN®-COATING)

Return pulleys FAPI-SWITCH are made with a Vulkollan® coating as standard. The highly wear-resistant elastomer Vulkollan® significantly increases the service life of the return pulley.

Advantages of a Vulkollan® coating:

- Excellent mechanical wear resistance and very low compression set
- Good resistance to mineral oils, greases, benzines and various solvents

Coating type:	Vulkollan®	
Coating hardness:	90° Shore (A)	
Comment:	Single or double sided shaft ends for mounting	
Dimensions:	Diameter:	100 to 250 mm
	Width:	50 to 500 mm
	Shaft:	as per specification
	- Further dimensions on request! -	

RETURN PULLEYS FAPI-SWITCH (TYPE WITH NBR-COATING)

The return pulley FAPI-SWITCH with an NBR coating is an alternative to the Vulkollan® coating. However, return pulleys with an NBR coating have a much shorter service life than those with a Vulkollan® coating.

Advantages of a NBR coating:

- Medium wear resistance and low compression set
- Good resistance to mineral oils, greases, benzines and various solvents

Coating type:	NBR	
Coating hardness:	90° Shore (A)	
Comment:	Single or double sided shaft ends for mounting	
Dimensions:	Diameter:	100 to 250 mm
	Width:	50 to 500 mm
	Shaft:	as per specification
	- Further dimensions on request! -	

RETURN PULLEYS FAPI-SWITCH LONGLIFE (TYPE WITH LONGLIFE-COATING)

The return pulley FAPI-SWITCH LONGLIFE is designed for the most extreme uses. The coating of the return pulley FAPI-SWITCH LONGLIFE has a multiple service life compared with conventional return pulleys.

Coating type:	Special LONGLIFE coating	
Remark:	Single or double sided shaft ends for mounting	
Dimensions:	Diameter:	100 to 250 mm
	Width:	50 to 500 mm
	Shaft:	as per specification
	- Further dimensions on request! -	

Picard tip:

Thanks to their extremely tough coating, return pulleys FAPI-SWITCH LONGLIFE are even suitable for use in situations in which the grain side of the abrasive belt runs over the return pulley coating.

Design:	ground	for grain side	} absolutely necessary!
	rough	for abrasive belt back	

Vulkollan® = registered trade mark of the Covestro-Group

EXPANDER WHEELS / EXPANDER ROLLERS

EXPANDER WHEELS FAPI-PA

The expander wheels of the FAPI-PA series are an ideal grinding tool for working with every kind of abrasive sleeve. These expander wheels are supplied only with a special slitted NBR coating, whereby the abrasive sleeve is clamped by the centrifugal force during operation. The NBR coated expander wheels are in practice often simply called "rubber expander wheels" or abrasive sleeve holders.

Dimensions:	Diameter:	50 to 450 mm	
	Width:	20 to 200 mm	
	Hole:	as per specification	
Coating hardness:	45° Shore (A) or 65° Shore (A)		
Cutting speeds:	up to 200 mm outer diameter	not less than	10 m/s
		max.	36 m/s
	from 200 mm outer diameter	not less than	13 m/s
		max.	36 m/s
Applications:	Metal working, wood processing		

EXPANDER WHEELS FAPI-VU

The expander wheels of the FAPI-VU series are an ideal grinding tool for working with every kind of abrasive sleeve. These expander wheels are supplied only with a special slitted coating made of foamed up Vulkollan®, whereby the abrasive sleeve is clamped by the centrifugal force during operation. The expander wheels coated with the foamed up Vulkollan® (VU) are in practice often simply called "foam expander wheels" or abrasive sleeve holders.

Dimensions:	Diameter:	50 to 450 mm	
	Width:	20 to 200 mm	
	Hole:	as per specification	
Coating hardness:	25° / 35° / 45° Shore (A)		
Cutting speeds:	up to 200 mm outer diameter	not less than	10 m/s
		max.	36 m/s
	from 200 mm outer diameter	not less than	13 m/s
		max.	36 m/s
Applications:	Metal working, wood processing		

EXPANDER ROLLERS FAPI-VU HAND

Our expander rollers FAPI-VU HAND are an ideal grinding tool for working with every kind of abrasive sleeve on hand-operated machines. Expander rollers FAPI-VU HAND are supplied only with a special slitted foamed up Vulkollan® coating, whereby the abrasive sleeve is clamped by the centrifugal force during operation.

Dimensions:	Diameter:	90 / 100 / 110 mm	
	Width:	40 / 50 / 100 mm	
	Hole:	19 mm keyway	

The suitable mounting adapter FAPI-M14 can be found on page 107!

Coating hardness:	45° Shore (A)		
Cutting speeds:	not less than	10 m/s	
	max.	36 m/s	
Applications:	Metal working, wood processing		

Vulkollan® = registered trade mark of the Covestro-Group

ABRASIVE SLEEVE HOLDERS / EXPANDER ROLLERS

ABRASIVE SLEEVE HOLDERS FAPI-SOFT

The highly elastic abrasive sleeve holders FAPI-SOFT are specifically designed for use on CNC- and hand drills. With its incredibly soft coating, the abrasive sleeve holder easily adapts to even complex shaped and curved workpieces.

Dimensions:	Diameter:	40 to 100 mm
	Width:	50 to 200 mm
	Hole/Shaft:	as per specification
Coating types:	Sponge rubber, foamed up Vulkollan®, NBR, etc.	
Coating hardness:	7° Shore (A) to 45° Shore (A).	
Cutting speeds:	not less than max.	10 m/s 36 m/s
Applications:	Finishing of glued joints in the seating furniture industry and other large, complex shaped wooden parts.	

ABRASIVE SLEEVE HOLDERS FAPI-PA

Abrasive sleeve holders FAPI-PA are primarily used on hand-held electric or pneumatic drills, flexible shafts and straight grinders. Using our abrasive sleeve holders FAPI-PA produces a longitudinal grinding, as opposed to the cross-grinding produced with grinding flap discs.

Dimensions:	Diameter:	8 to 100 mm
	Width:	10 to 40 mm
	Shaft:	3 mm / 6 mm / 8 mm
Coating types:	NBR	
Coating hardness:	65° or 85° Shore (A).	
Applications:	Removal of weld joints in steel construction Edge and contour processing in turbine construction Post-treatment in construction work	

EXPANDER ROLLERS FAPI-PA HAND

Expander rollers FAPI-PA HAND are supplied only with a special perforated NBR coating, whereby the abrasive sleeve is clamped by the centrifugal force during operation.

Dimensions:	Diameter:	90 mm
	Width:	100 mm
	Hole:	as per specification
Coating types:	NBR	
Coating hardness:	45° Shore (A).	
Cutting speeds:	not less than max.	10 m/s 36 m/s
Applications:	Removal of weld joints in steel construction Edge processing	

Vulkollan® = registered trade mark of the Covestro-Group

AIR CONTACT ROLLS / PRESSURE ROLLS / BAND SAW WHEELS

AIR CONTACT ROLLS FAPI-AIR

Our air contact rolls FAPI-AIR are used for precision grinding of contours. The hardness of the air contact roll FAPI-AIR is determined by the volume of air supplied. Air contact rolls FAPI-AIR therefore enable surfaces to be ground with a hard setting and profiles with a softer setting.

Dimensions: Diameter: 90 mm
Width: 100 mm
Hole: 19 mm keyway

Applications: Edge, contour and surface treatment in metal processing/ working (e.g. turbines)
Metal working, wood processing

PRESSURE ROLLS FAPI-PRESS

The pressure rolls FAPI-PRESS are equipped with an intelligent clamping system which enables abrasive sleeves to be clamped securely and completely independent of the centrifugal force. The abrasive sleeve is clamped by means of a cone system, guaranteeing that it is constantly held firmly in place during grinding.

Dimensions: Diameter: 100 to 450 mm
Width: 50 to 200 mm
Thread: as per specification

Applications: Removal of welds in steel construction
Edge and contour processing in turbine construction
Post-treatment in construction work

BAND SAW WHEELS FAPI-SAW (RECOVERING)

The band saw blade continues to move from its original position when the machines are constantly in use. This is due to the fact that the band saw blade runs into the coating. Therefore a recovering is inescapable
Depending on the band saw machine producer, the band saw wheels FAPI-SAW can be recovered with a straight or crowned surface.

Dimensions: as per specification
Coating types: NBR, Vulkollan®, etc.
Coating hardness: 65° / 80° / 90° Shore (A).

Vulkollan® = registered trade mark of the Covestro-Group

PRESSURE- AND FEEDING ROLLS

PRESSURE AND FEEDING ROLLS

We produce complete, installation-ready pressure and feeding rolls for moulding machines, feeding systems and belt grinding machines. We determine the rolls coating material, the format in smooth or grooved configuration and the optimum hardness rating for the coating on a customer-specific basis.

Dimensions:	Diameter:	110 to 180 mm
	Width:	10 to 220 mm
	Hole:	as per specification
Coating types:	NBR, Vulkollan®, Silicone, etc.	
Coating hardness:	25° / 35° / 45° / 65° / 80° / 90° Shore (A).	
Rolls:	Weinig, Gubisch, Holz-Her, Harbs, Roma, etc.	

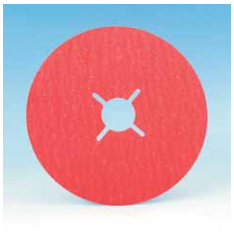
Recovering

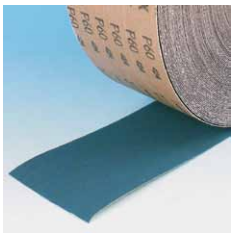
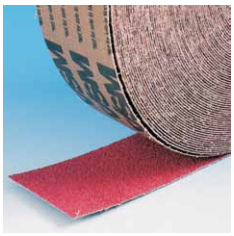
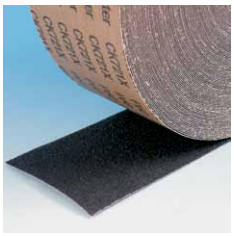
We offer a recovering service for your used pressure and feeding rolls. We can also supply the most common pressure and feeding rolls at short notice from our stock through an exchange process.

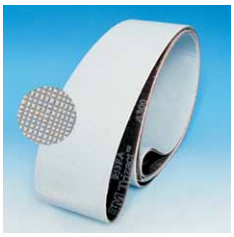
Vulkollan® = registered trade mark of the Covestro-Group

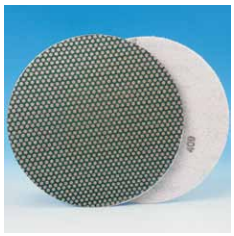
COATED ABRASIVES

OVERVIEW COATED ABRASIVES



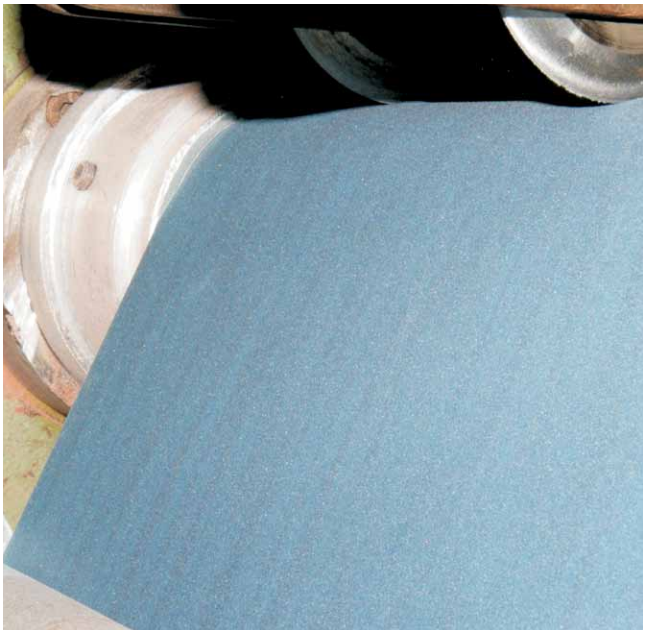




MANUFACTURERS OF ABRASIVE MATERIALS

We work exclusively with well-known manufacturers of abrasive materials, ensuring that all our products are of the very highest quality standard.

Thanks to our long-term relationships with the manufacturers and our continuous programme of training for our entire sales team, we are always able to advise our customers about the very latest products and services.



ABRASIVE SOLUTIONS

We operate as a troubleshooter for our customers, with the focus firmly on meeting their needs. We work with you to determine the best possible solution for your requirements. Besides technical advice and on-site service, this includes supplying high-tech, high-quality and high-performance abrasive products in roll, belt, disc and sheet form.

PROCESS SOLUTIONS "BELT GRINDING"

We improve the belt grinding process from start to finish. This means that we analyse your entire process and recommend the best abrasive belt and contact wheel for your needs:

a) Contact wheels

We advise you on the best contact wheel for your belt grinding process. Choosing the perfect contact wheel for the job can improve the belt grinding process by up to 40%.

b) Choice of abrasive belts

As we can custom-assemble different abrasive belts from different manufacturers, we are independent and have recourse to the best product for your purposes.

GRAIN SIZE TABLE

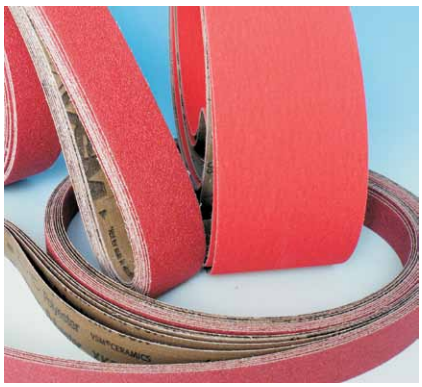
The table below provides a comparison of the various grain sizes and roughness values that can be achieved. Please note that these are guide figures only.

FEPA	TRIZACT™ NORAX™	DIAMOND CBN	JIS (JAPAN)
60		251µ	J60
80	A300		
100			
120	A160	126µ	J100
150	A130		
180		91µ	J150
220	A90		J180
240	A80		J320
280		64µ	
320	A65		J360
360			J400
400	A45	46µ	
500	A30		J600
600		20µ	
800			J700
1000	A20		J800
1200	A16		J1000
1500			J1200
2000	A6		
2500			J2000

ENDLESS ABRASIVE BELTS (NARROW / WIDE BELTS)

ABRASIVE BELTS WITH CERAMIC ABRASIVE GRAIN

Abrasive belts with ceramic abrasive grains can be used to achieve the very highest belt grinding performance. This results from the grinding belt's special design with ceramic grains, which, with special grinding additives, provides for especially cool grinding.



Dimensions: Width: as per specification
Length: as per specification

Grain sizes: 20 / 24 / 36 / 40 / 60 / 80 / 120

Applications: Chrome steel, chrome nickel steel, high-alloyed steel, nickel based/titanium/aluminium alloys, brass and bronze

ABRASIVE BELTS WITH ZIRCONIA ALUMINA ABRASIVE GRAIN

Due to their outstanding cutting ability and active grinding additives, the abrasive belts with zirconia alumina abrasive grains enable aggressive stock removal during belt grinding. During dry grinding, an additional active grinding layer increases the cutting performance many times over and significantly reduces the working temperature at the grinding point.

Dimensions: Width: as per specification
Length: as per specification

Grain sizes: 24 / 36 / 40 / 60 / 80 / 120

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

ABRASIVE BELTS WITH SILICON CARBIDE ABRASIVE GRAIN

Abrasive belts with silicon carbide abrasive grains are produced synthetically and are very sharp edged by low toughness and great hardness. This enables a fine and even finish to be achieved with these abrasive belts with silicon carbide abrasive grains on the workpieces.

Dimensions: Width: as per specification
Length: as per specification

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200

Applications: Non-alloyed and low-alloyed steel, brass and bronze, hardwood, paints/varnishes/filler, glass/ceramics/porcelain, rubber and plastics, minerals

ABRASIVE BELTS WITH ALUMINIUM OXIDE ABRASIVE GRAIN

Abrasive belts with aluminium oxide abrasive grains are extremely hard and adequately tough. Aluminium oxide abrasive grain is the universal grain for processing metal and wooden surfaces.

Dimensions: Width: as per specification
Length: as per specification

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200 / 1500 / 2000 / 2500

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

ABRASIVE SLEEVES

ABRASIVE SLEEVES WITH CERAMIC ABRASIVE GRAIN

Abrasive sleeves with ceramic abrasive grains can be used to achieve the very highest stock removal. This results from the sleeve's special design with ceramic grains, which, with their special grinding additives, keep the workpiece particularly cool during grinding.

Dimensions: Width: 10 to 40 mm
Diameter: 10 to 100 mm

Grain sizes: 20 / 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120

Applications: Chrome steel, chrome nickel steel, high-alloyed steel, nickel based/ titanium/aluminium alloys, brass and bronze

ABRASIVE SLEEVES WITH ZIRCONIA ALUMINA ABRASIVE GRAIN

Due to their outstanding cutting ability and active grinding additives, our abrasive sleeves with zirconia alumina abrasive grains enable aggressive stock removal during grinding. During dry grinding, an additional active grinding layer increases the cutting performance many times over and significantly reduces the working temperature at the grinding point.

Dimensions: Width: 10 to 40 mm
Diameter: 10 to 100 mm

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

ABRASIVE SLEEVES WITH SILICON CARBIDE ABRASIVE GRAIN

Abrasive sleeves with silicon carbide grinding grains are produced synthetically and are very sharp edged by low toughness and great hardness. This enables a fine and even finish to be achieved with our abrasive sleeves with silicon carbide abrasive grains on the workpieces.

Dimensions: Width: 10 to 40 mm
Diameter: 10 to 100 mm

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200

Applications: Non-alloyed and low-alloyed steel, brass and bronze, hardwood, paints/ varnishes/filler, glass/ceramics/porcelain, rubber and plastics, minerals

ABRASIVE SLEEVES WITH ALUMINIUM OXIDE ABRASIVE GRAIN

Abrasive sleeves with aluminium oxide abrasive grains are extremely hard and adequately tough. Aluminium oxide abrasive grain is the universal grain for processing metal and wooden surfaces.

Dimensions: Width: 10 to 40 mm
Diameter: 10 to 100 mm

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200 / 1500 / 2000 / 2500

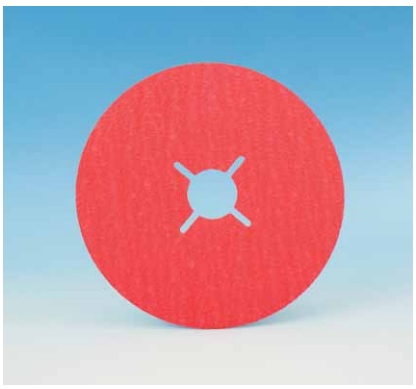
Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

FIBRE DISCS

FIBRE DISCS WITH CERAMIC ABRASIVE GRAIN

Fibre discs with ceramic abrasive grain can be used to achieve the very highest removal rate. This results from the disc's special design with ceramic grains, which, with their special grinding additives, keep the workpiece particularly cool during grinding.

Dimensions: Ø 115 x 22 mm / Ø 125 x 22 mm / as per specification
Grain sizes: 20 / 24 / 36 / 40 / 60 / 80 / 120
Applications: Chrome steel, chrome nickel steel, high-alloyed steel, nickel based/ titanium/aluminium alloys, brass and bronze



FIBRE DISCS WITH ZIRCONIA ALUMINA ABRASIVE GRAIN

Due to their outstanding cutting ability and active grinding additives, our fibre discs with zirconia alumina abrasive grain enable aggressive stock removal during grinding. During dry grinding, an additional active grinding layer increases the cutting performance many times over and significantly reduces the working temperature at the grinding point

Dimensions: Ø 115 x 22 mm / Ø 125 x 22 mm / as per specification
Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120
Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

FIBRE DISCS WITH SILCON CARBIDE ABRASIVE GRAIN

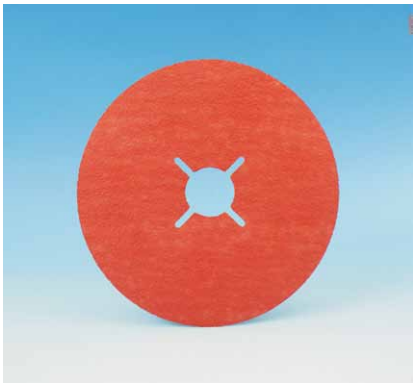
Fibre discs with silicon carbide abrasive grain are produced synthetically and are very sharp edged by low toughness and great hardness. This enables a fine and even finish to be achieved with our fibre discs with silicon carbide abrasive grains on the workpieces.

Dimensions: Ø 115 x 22 mm / Ø 125 x 22 mm / as per specification
Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200
Applications: Non-alloyed and low-alloyed steel, brass and bronze, hardwood, paints/varnishes/filler, glass/ceramics/porcelain, rubber and plastics, minerals

FIBRE DISCS WITH ALUMINIUM OXIDE ABRASIVE GRAIN

Fibre discs with aluminium oxide abrasive grain are extremely hard and adequately tough. Aluminium oxide abrasive grain is the universal grain for processing metal and wooden surfaces.

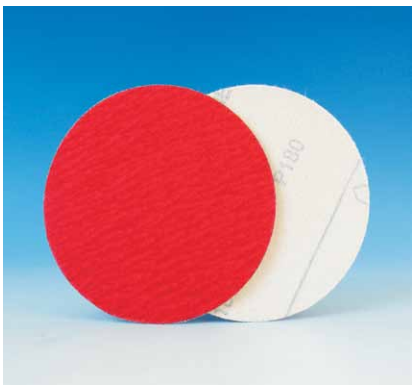
Dimensions: Ø 115 x 22 mm / Ø 125 x 22 mm / as per specification
Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200 / 1500 / 2000 / 2500
Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze



VELCRO-BACKED GRINDING DISCS

VELCRO-BACKED GRINDING DISCS WITH CERAMIC ABRASIVE GRAIN

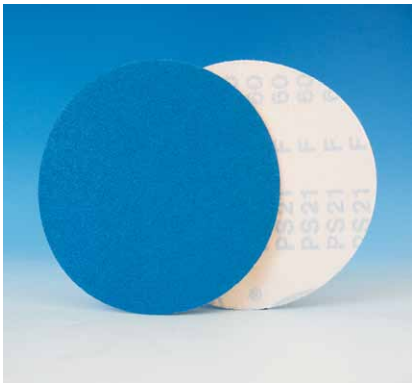
Velcro-backed grinding discs with ceramic abrasive grain can be used to achieve the very highest removal rate. This results from the special design of the velcro-backed abrasive belt with ceramic grains, which, with special grinding additives, keeps the workpiece particularly cool during grinding.



Dimensions: Ø 115 mm / Ø 125 mm / Ø 150 mm / as per specification
Grain sizes: 20 / 24 / 36 / 40 / 60 / 80 / 120
Applications: Chrome steel, chrome nickel steel, high-alloyed steel, nickel based/ titanium/aluminium alloys, brass and bronze

VELCRO-BACKED GRINDING DISCS WITH ZIRCONIA ALUMINA ABRASIVE GRAIN

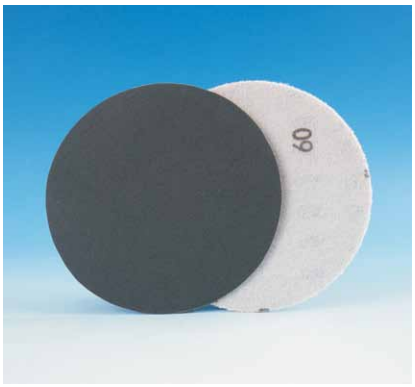
Due to their outstanding cutting ability and active grinding additives, our velcro-backed grinding discs with zirconia alumina abrasive grain enable aggressive stock removal during grinding. During dry grinding, an additional active grinding layer increases the cutting performance many times over and significantly reduces the working temperature at the grinding point.



Dimensions: Ø 115 mm / Ø 125 mm / Ø 150 mm / as per specification
Grain sizes: 24 / 36 / 40 / 60 / 80 / 120
Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

VELCRO-BACKED GRINDING DISCS WITH SILICON CARBIDE ABRASIVE GRAIN

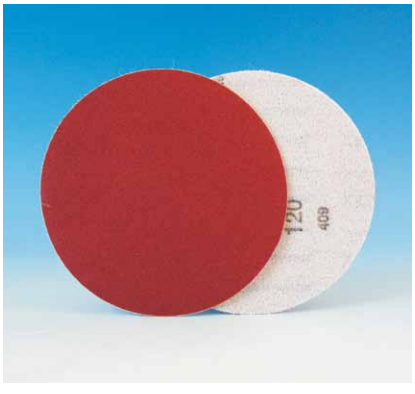
Velcro-backed grinding discs with silicon carbide abrasive grain are produced synthetically and are very sharp edged by low toughness and great hardness. This enables a fine and even finish to be achieved with our grinding discs with silicon carbide abrasive grains on the workpieces.



Dimensions: Ø 115 mm / Ø 125 mm / Ø 150 mm / as per specification
Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200
Applications: Non-alloyed and low-alloyed steel, brass and bronze, hardwood, paints/ varnishes/filler, glass/ceramics/porcelain, rubber and plastics, minerals

VELCRO-BACKED GRINDING DISCS WITH ALUMINIUM OXIDE ABRASIVE GRAIN

Velcro-backed grinding discs with aluminium oxide abrasive grain are extremely hard and adequately tough. Aluminium oxide abrasive grain is the universal grain for processing metal and wooden surfaces.



Dimensions: Ø 115 mm / Ø 125 mm / Ø 150 mm / as per specification
Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200 / 1500 / 2000 / 2500
Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

ABRASIVE ROLLS

ABRASIVE ROLLS WITH CERAMIC ABRASIVE GRAIN

Abrasive rolls with ceramic abrasive grain can be used to achieve the very highest stock removal. This results from the abrasive belt's special design with ceramic grains, which, with special grinding additives, keeps the workpiece particularly cool during grinding

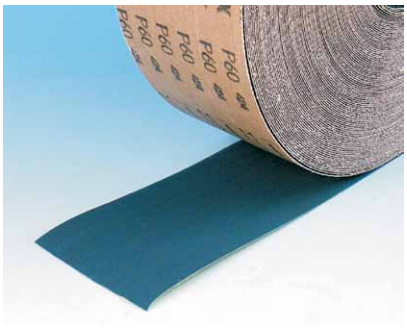
Dimensions: Width: 6 to 1.450 mm
Length: as per specification

Grain sizes: 20 / 24 / 36 / 40 / 60 / 80 / 120

Applications: Chrome steel, chrome nickel steel, high-alloyed steel, nickel based/ titanium/aluminium alloys, brass and bronze

ABRASIVE ROLLS WITH ZIRCONIA ALUMINA ABRASIVE GRAIN

Due to their outstanding cutting ability and the active grinding additives, our abrasive rolls with zirconia alumina grain make aggressive stock removal possible during belt grinding. During dry grinding, an additional active grinding layer increases the cutting performance many times over and significantly reduces the working temperature at the grinding point.



Dimensions: Width: 6 to 1.450 mm
Length: as per specification

Grain sizes: 24 / 36 / 40 / 60 / 80 / 120

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

ABRASIVE ROLLS WITH SILICON CARBIDE ABRASIVE GRAIN

Abrasive rolls with silicon carbide grinding grain are produced synthetically and are very sharp edged by low toughness and great hardness. This enables a fine and even finish to be achieved with our abrasive rolls with silicon carbide abrasive grains on the workpiece.

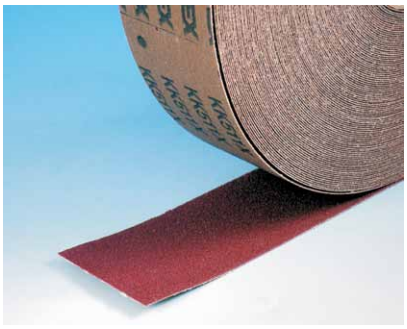
Dimensions: Width: 6 to 1.450 mm
Length: as per specification

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200

Applications: Non-alloyed and low-alloyed steel, brass and bronze, hardwood, paints/varnishes/filler, glass/ceramics/porcelain, rubber and plastics, minerals

ABRASIVE ROLLS WITH ALUMINIUM OXIDE ABRASIVE GRAIN

Abrasive rolls with aluminium oxide abrasive grain are extremely hard and adequately tough. Aluminium oxide abrasive grain is the universal grain for processing metal and wooden surfaces.



Dimensions: Width: 6 to 1.450 mm
Length: as per specification

Grain sizes: 24 / 36 / 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600 / 800 / 1000 / 1200 / 1500 / 2000 / 2500

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, cast iron, aluminium alloys, brass and bronze

ABRASIVE FLEECE / SCOTCH-BRITE™

ABRASIVE FLEECE BELTS

Dimensions: Width: as per specification
Length: as per specification

Grain sizes: A-Coarse / A-Medium / A-Fine / A-Very Fine

Applications: Cleaning lightly oxidised and rusted metal surfaces, satin finishing metal surfaces, finishing stainless steel and painted/varnished surfaces.

ABRASIVE FLEECE ROLLS

Dimensions: Width: as per specification
Length: 10 m / as per specification

Grain sizes: A-Coarse / A-Medium / A-Fine / A-Very Fine / S-Very Fine / S-Super-Fine / S-Ultra-Fine/ S-Micro-Fine

Applications: Cleaning lightly oxidised and rusted metal surfaces, satin finishing metal surfaces, finishing stainless steel and painted/varnished surfaces

ABRASIVE FLEECE SLEEVES

Dimensions: Width: as per specification
Length: as per specification

Grain sizes: A-Coarse / A-Medium / A-Fine / A-Very Fine

Applications: Cleaning lightly oxidised and rusted metal surfaces, satin finishing metal surfaces, finishing stainless steel and painted/varnished surfaces

VELCRO-BACKED ABRASIVE FLEECE DISCS

Dimensions: Ø 115 mm / Ø 125 mm / Ø 150 mm / as per specification

Grain sizes: A-Coarse / A-Medium / A-Fine / A-Very Fine / S-Ultra-Fine
- Further grain sizes on request! -

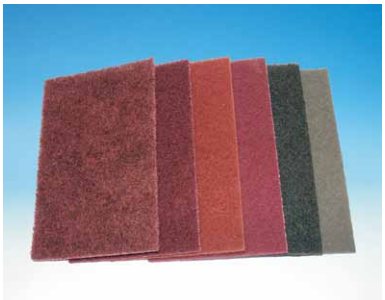
Applications: Cleaning lightly oxidised and rusted metal surfaces, satin finishing metal surfaces, finishing stainless steel and painted/varnished surfaces.

ABRASIVE FLEECE SHEETS

Dimensions: 150 x 230 mm / 230 x 280 mm / as per specification

Grain sizes: A-Coarse / A-Medium / A-Fine / A-Very Fine / S-Very Fine / S-Super-Fine / S-Ultra-Fine/ S-Micro-Fine

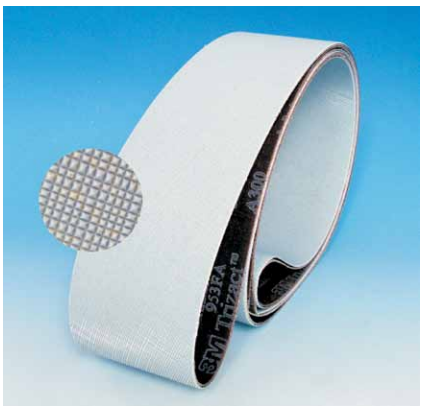
Applications: Cleaning lightly oxidised and rusted metal surfaces, satin finishing metal surfaces, finishing stainless steel and painted/varnished surfaces.



3M TRIZACT™-ABRASIVE MATERIAL / 3M CUBITRON™-ABRASIVE MATERIAL

ABRASIVE BELTS 3M TRIZACT™

Abrasive belts 3M Trizact™ are precision tools for processing and finishing. As these three-dimensional structures – pyramid or block shaped – wear, fresh cutting edges are exposed, resulting in a high-quality, consistent finish throughout the tool's service life.

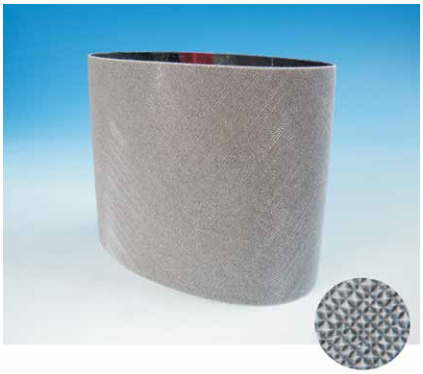


Dimensions: Width: as per specification
Length: as per specification

Grain sizes: A300 / A160 / A130 / A100 / A90 / A80 / A65 / A60 / A45 / A40 /A30 / A 20 / A16 / A6

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, chrome steel, chrome nickel steel, cast iron, nickel-based, aluminium and titanium alloys, brass and bronze

ABRASIVE SLEEVES 3M TRIZACT™

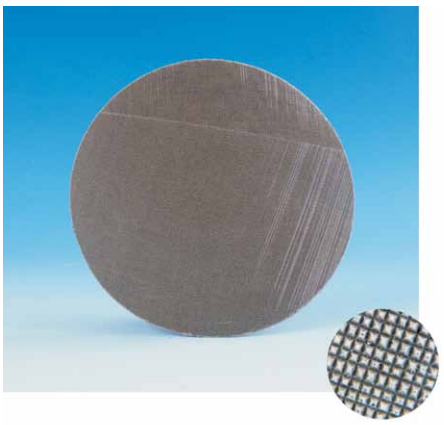


Dimensions: Width: 50 mm / as per specification
Diameter: 50 to 100 mm

Grain sizes: A300 / A160 / A130 / A100 / A90 / A80 / A65 / A60 / A45 / A40 /A30 / A 20 / A16 / A6

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, chrome steel, chrome nickel steel, cast iron, nickel-based, aluminium and titanium alloys, brass and bronze

VELCRO-BACKED DISCS 3M TRIZACT™



Dimensions: Ø 115 mm / Ø 125 mm / as per specification

Grain sizes: A300 / A160 / A130 / A100 / A90 / A80 / A65 / A60 / A45 / A40 / A30 / A 20 / A16 / A6

Applications: Non-alloyed and low-alloyed steel, high-alloyed steel, chrome steel, chrome nickel steel, cast iron, nickel-based, aluminium and titanium alloys, brass and bronze

ABRASIVE BELTS 3M CUBITRON™ II

The grinding belts 3M Cubitron™ II consist of a ceramic sinter grain providing a constantly new sharpening of the worn part. During grinding, small corners of the abrasive grain are broken off. Due to the micro fractures in the grain, sharp edges with an increased cutting ability are generated.

Dimensions: Width: as per specification
Length: as per specification

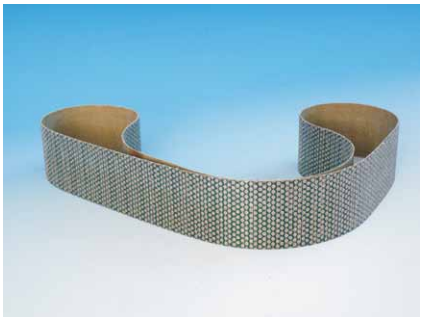
Grain sizes: 36 / 60 / 80

Applications: Chrome steel, chrome nickel steel, high-alloyed steel, nickel based and titanium alloys

DIAMOND ABRASIVE MATERIAL / CBN ABRASIVE MATERIAL

ABRASIVE BELTS DIAMOND / CBN

The Diamond and CBN abrasive belts are particularly suited for work with hardened steels (>55 HRC) and titanium alloys. Next to diamonds, CBN (cubic boron nitride) is the hardest grinding grain.

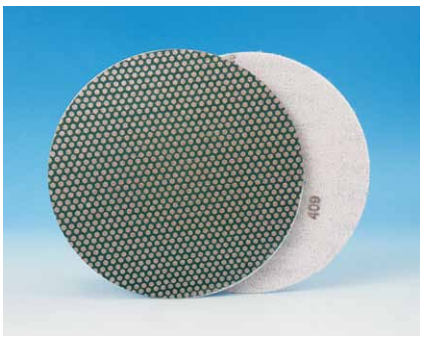


Dimensions:	Width:	5 to 300 mm
	Length:	330 to 3.500 mm
Grain sizes:	251µ / 126µ / 91µ / 64µ / 46µ / 30µ	
Applications (diamond):	Glass, ceramics, tungsten carbide, chrome oxide, natural stone	
Applications (CBN):	Hardened steels, chrome (layers), carbon metals, cast iron	

ABRASIVE SLEEVES DIAMOND / CBN

Dimensions:	Width:	10 to 40 mm
	Diameter:	10 to 100 mm
Grain sizes:	251µ / 126µ / 91µ / 64µ / 46µ / 30µ	
Applications (diamond):	Glass, ceramics, tungsten carbide, chrome oxide, natural stone	
Applications (CBN):	Hardened steels, chrome (layers), carbon metals, cast iron	

VELCRO-BACKED DISCS DIAMOND / CBN



Dimensions:	Ø 115 mm / Ø 125 mm / Ø 150 mm / as per specification
Grain sizes:	251µ / 126µ / 91µ / 64µ / 46µ / 30µ
Applications (Diamant):	Glass, ceramics, tungsten carbide, chrome oxide, natural stone
Applications (CBN):	Hardened steels, chrome (layers), carbon metals, cast iron

ABRASIVES SHEETS DIAMOND / CBN

Dimensions:	230 x 280 mm / as per specification
Grain sizes:	251µ / 126µ / 91µ / 64µ / 46µ / 30µ
Applications (Diamant):	Glass, ceramics, tungsten carbide, chrome oxide, natural stone
Applications (CBN):	Hardened steels, chrome (layers), carbon metals, cast iron

GRINDING FLAP TOOLS

MATERIAL "ABRASIVE CLOTH IN FORM OF LAMELLAR"

Grinding flaps are cut from grinding rolls of the appropriate quality. The fabric, the grain size and its adhesion are decisive in determining the life cycle of a grinding flap tool.
To guarantee a maximum service life for the grinding flap tool and an optimum surface finish on the workpiece, it is essential to choose the right quality of abrasive cloth.

QUALITIES "ABRASIVE CLOTH"

Basically our grinding flap tools can be produced of most different abrasive cloths:

Aluminium oxide (Al_2O_3) abrasive cloth
Very tough universal abrasive material, extremely strong.
Colour: brown (predominantly)

Silicon carbide (SiC) abrasive cloth
Very tough abrasive material made extremely strong due to silicon carbide grains.
Colour: black (predominantly)

Zirkonia alumina abrasive cloth
Excellent wear behaviour and good stock removal rate.
Colour: blue (predominantly)

Ceramic grain abrasive cloth
Very high stock removal rate. Particularly stable; due to active top-size coating (coolant liquid in solid form) keeps the workpiece cool during grinding.
Colour: red (predominantly)

Diamond abrasive cloth
Clear service life benefits compared with conventional abrasive cloth. Ideal for particularly hard materials.
Colour: green / silver (predominantly)

CBN abrasive cloth
Clear service life benefits compared with conventional abrasive cloth. Ideal for particularly hard materials.
Colour: silver (predominantly)

PROCESS STEP "GRINDING / DEBURRING"

Our grinding flap tools are ideally suited for grinding and deburring all kinds of materials. Grinding flap tools are used for both manual and machine work.
Our grinding flap tools can be individually adapted to the process they are needed for, and because of their flexibility they are primarily used when the job cannot be performed with an abrasive belt or a grinding wheel.
Grinding flap tools can be used for dry and wet processes.

GRAIN SIZES

Please bear in mind that because grinding flap tools are flexible, they do not have such an aggressive effect on the workpiece as abrasive belts.
Practical experience has shown that because of their flexibility, grinding flap tools have the effect of grinding more finely than abrasive belts by about one or two grain sizes.

Example:
With a flap grinding wheel FAPI-RING with grain size 180 you can achieve roughly the same finish as with an abrasive belt with grain size 240.

GRINDING DISCS FAPI-ATTACK 150

The grinding disc FAPI-ATTACK 150 is ideally suited for extremely aggressive grinding and will be used primarily for aggressive grinding both on flat surfaces and edges.

Dimensions: Diameter: 150 mm
Facing height: 30 mm / as per specification
Hole: 25 mm

Grain sizes: 24 / 36 / 40 / 60 / 80 / 120 / as per specification

Applications: Metal working (coarse roughing, welded seams treatment, etc.)
stone processing

GRINDING DISCS FAPI-ATTACK M14

The grinding disc FAPI-ATTACK M14 has been developed for manual use on angle grinders. It is ideally suited for extremely aggressive grinding and will be used primarily for aggressive grinding both on flat surfaces and edges. Because of the higher facing, the grinding disc FAPI-ATTACK M14 has a much longer service life than a lamellar flap disc.

Dimensions: Diameter: 115 mm
Facing height: 30 mm / as per specification
Thread: M14

Grain sizes: 24 / 36 / 40 / 60 / 80 / 120 / as per specification

Applications: Metal working (welded seams treatment, edging, etc.)
stone processing

GRINDING DISCS FAPI-ATTACK TRIM

The grinding disc FAPI-ATTACK TRIM has been developed for use on deburring machines and for stone processing. It is ideally suited for removing the primary burr at sheet metal resp. for grinding stones.

Dimensions: Diameter: 115 mm
Facing height: 30 mm / as per specification
Hole: 14 mm with quick release system

Grain sizes: 24 / 36 / 40 / 60 / 80 / 120 / as per specification

Applications: Metal working
stone processing

FLAP GRINDING WHEELS

FLAP GRINDING WHEELS FAPI-RING

Flap grinding wheels FAPI-RING with straight lamellae for surface treatment. The fan-like, radially arranged lamellae adjust ideally to the workpiece's contours. Our flap grinding wheels FAPI-RING are manufactured with an economic ring-shaped holder. When in use, the tool must be equipped with a pair of reusable clamping covers.

Dimensions:
Diameter: 100 to 460 mm
Width: 30 to 200 mm
Hole: as per specification

Grain sizes: 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600

Applications:
Fine surface grinding jobs
Concave and convex surfaces
Edge working
Profiles
Internal and external grinding of canisters and apparatus

For flap grinding wheels FAPI-RING the principle of course applies that they should only be used in conjunction with clamping covers! Please have a look at our brochure page 112 to get more information about clamping covers FAPI-SPANN!

FLAP GRINDING WHEELS FAPI-CORE

Flap grinding wheels FAPI-CORE with straight lamellae for surface treatment. The fan like, radially arranged lamellae adjust ideally to the workpiece's contours. Our flap grinding wheels FAPI-CORE are manufactured with a plastic core and can be mounted directly on the machine shaft. They therefore do not need to be used with a suitable pair of clamping covers - as the flap grinding wheel FAPI-CORE.

Dimensions:
Diameter: 100 to 460 mm
Width: 30 to 200 mm
Hole: as per specification

Grain sizes: 40 / 50 / 60 / 80 / 100 / 120 / 150 / 180 / 240 / 320 / 400 / 600

Applications:
Fine surface grinding jobs
Concave and convex surfaces
Edge working
Profiles
Internal and external grinding of canisters and apparatus

FLAP GRINDING ROLLERS / MOUNTED FLAP WHEELS

FLAP GRINDING ROLLERS FAPI-SAND

Flap grinding rollers FAPI-SAND are made of individual abrasive cloth flaps. The flaps are arranged fan-like around the hole and embedded in a plastic core. The plastic core has a hole of 19 mm and keyways to enable them to be used on hand-held sanders or satin finishers.

Dimensions: Diameter: 100 mm
Width: 50 and 100 mm
Hole: 19 mm with keyway

Grain sizes: 40 to 320

Applications: Cleaning, deburring, derusting, pre-grinding, structuring, roughening

MOUNTED FLAP WHEELS FAPI-SAND

Mounted flap wheels FAPI-SAND are made of individual abrasive cloth lamellae. The lamellae are fastened fan-like around the tool's axis. The mounted flap wheels have a shaft diameter of 3, 6 or 8 mm depending on the design, and can be used easily on manual drills, flexible shafts etc.

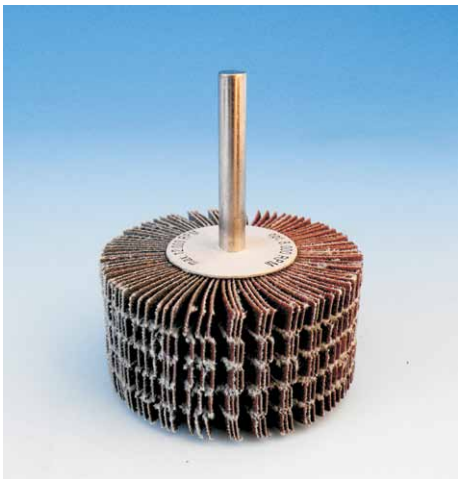
Dimensions: Diameter: 10 to 100 mm
Width: 5 to 50 mm
Shaft: 3 mm / 6 mm / 8 mm

Grain sizes: 60 to 320

Applications: Cleaning, deburring, derusting, pre-grinding, structuring, roughening

MOUNTED FLAP WHEELS FAPI-SANDBRUSH

Mounted flap wheels FAPI-SANDBRUSH are made of individual abrasive cloth lamellae, each of which is slit around its entire circumference. The slits increase the flexibility of the mounted flap wheels so that it fits the workpiece's contours better. The slit abrasive cloth lamellae are fastened fan-like around the tool's axis.



Dimensions: Diameter: 40 to 60 mm
Width: 20 to 30 mm
Shaft: 6 mm

Grain sizes: 80 / 120

Applications: Cleaning, deburring, derusting, pre-grinding, structuring, roughening

PROFILE SANDING ROLLERS / PROFILE SANDING WHEELS

PROFILE SANDING ROLLERS FAPI-FLEX / FAPI-FLEX-PLUS

With their special structure and completely slit abrasive cloth lamellae, the profile sanding rollers FAPI-FLEX and FAPI-FLEX-PLUS are suitable for a wide range of uses. In fine wood sanding, the profile sanding rollers do not carve into soft wood or leave comma formations on the wood surface. Wood finishing removes the fine wood fibres left after the abrasive belt treatment, thus reducing not only the amount of base paint required, but also providing a better surface for an optimum intermediate varnish sanding.

Dimensions: Diameter: 150 to 400 mm
Width: 200 to 2.000 mm
Hole: as per specification

Grain sizes: 60 to 400

Applications: Fine wood sanding, intermediate varnish sanding, oil/wax intermediate sanding, plastic sanding (satin effect), MDF board sanding

PROFILE SANDING WHEELS FAPI-FLEX-RADIAL

Our profile sanding wheels of the FAPI-FLEX-RADIAL series - depending on the respective grain size - are especially suitable for fine wood sanding and/or intermediate varnish sanding. For example, this tool can be used well when working on the fold area on doors and windows. Profile sanding wheels of the FAPI-FLEX-RADIAL series can also be used for all kinds of sharp edged profile shapes, such as mouldings.

Dimensions: Diameter: 250 mm / 400 mm
Width: 2.000 mm
Hole: as per specification

Grain sizes: 60 to 400

Applications: Fine wood sanding, intermediate varnish sanding, oil/wax intermediate sanding, plastic sanding (satin effect), MDF board sanding

PROFILE SANDING WHEELS FAPI-SW

Thanks to their highly elastic facing, our profile sanding wheels FAPI-SW are used primarily for fine sanding at wavy and curved wooden workpieces. The optimal adaptation of the facing ensures optimal surface qualities on the workpiece.

Dimensions: Diameter: 160 mm / 250 mm
Width: 50 mm
Hole: as per specification

Grain sizes: 60 to 400

Applications: Fine sanding at wavy and curved workpieces (mainly wood)

PLEATED GRINDING MOP / SANDING STRIP RINGS / GRINDING STARS

PLEATED GRINDING MOP FAPI-SAND

The pleated grinding mop FAPI-SAND is the ideal tool for fine surface finishing and is especially suited for work on joints, grooves and fluting. It can be used with every kind of machine (hand grinders, stationary grinders, automated grinders, pedestal grinders, flexible shafts, etc.).

Dimensions: Diameter: 165 to 400 mm
Width: 10 to 35 mm
Hole: as per specification

Grain sizes: 40 to 320

Applications: Container/apparatus engineering, precision engineering, form construction

ABRASIVE STRIP RINGS FAPI-STRIPS

The facing of the abrasive strip ring FAPI-STRIPS produces a high abrasive effect. Furthermore, processing is positively influenced by the high elasticity of the abrasive cloth lamellae and the ability to optimally adapt the tool to the workpiece being processed.
Due to their construction the air-cooled abrasive strip rings FAPI-STRIPS also enable strong contact pressure and high speeds without heating or burning.

Types: Cardboard core / Steel ring insert

Structure: 6 to 12 layers in a range of abrasive cloth qualities
Other numbers of layers possible

Dimensions: Diameter: 100 to 500 mm
Width: 15 to 56 mm
Hole: as per specification

Grain sizes: 120 to 400

Applications: For deburring, rounding and sanding all workpieces/materials with multiple contours on automatic grinding and polishing machines and/or manual processing on a pedestal polisher.

GRINDING STARS FAPI-STAR

Generally, grinding stars FAPI-STAR are the ideal tool for deburring or when working on strongly profiled workpieces or cut edges. The use of grinding stars is recommended if extremely cool or fine grinding is required.

Types: Bushing

Structure: Slotted strips of abrasive cloth laid reciprocally one on the other, in various qualities

Dimensions: Diameter: 100 to 350 mm
Width: 15 to 56 mm
Hole: as per specification

Grain sizes: 60 to 600

Applications: Processing of thermoplastic plastics
Woodworking industry (profiles, forms, figures, etc.)
Metal working industry (engine parts, aluminium profiles, etc.)

ABRASIVE FLEECE TOOLS

MATERIAL "ABRASIVE FLEECE"

Abrasive fleece is a three-dimensional grinding material made of non-woven nylon fibres interspersed with grinding grain. The various grain sizes make it ideal for work on nearly every surface and ensure a superior surface finish during grinding.

QUALITIES "ABRASIVE FLEECE"

Basically, our abrasive fleece tools can be divided into two qualities:

Aluminium oxide (Al_2O_3) abrasive fleece tools

Abrasive fleece sheets interspersed with Al_2O_3 are used mainly in metal working and woodworking.

Silicon carbide (SiC) abrasive fleece tools

Abrasive fleece tools interspersed with SiC are used mainly for work on painted surfaces or with plastics. In stainless steel processing, they are used when a reflective surface finish is desired.

DESIGNATION	CLASSIFICATION GRAIN FRACTION
Coarse	80 to 100
Medium	120 to 150
Fine	180 to 240
Very fine	280 to 320
Super fine	400 to 600
Ultra fine	800 to 1000

We also manufacture special abrasive fleeces on request.

HARDNESS / DENSITY "ABRASIVE FLEECE"

Various types of hardness can be produced on abrasive fleece tools (particularly on satin finishing wheels). The decisive criterion is the compaction of the abrasive fleece:

HARDNESS	DESCRIPTION
H3	soft
H5	medium soft
H7	medium hard
H10	hard
H12	very hard
RAX	extremely hard

PROCESS STEPS "SATIN FINISHING"

Our abrasive fleece tools are ideally suited for fine work on every kind of material. Abrasive fleece tools are mainly used for hand grinding, on routers or on oscillating sanders. They are used to clean light oxidation, remove rust from metal surfaces, provide metal surfaces with a satin finish and finish stainless steel and painted surfaces.

Abrasive fleece tools can be used in dry and wet processes. The following cutting speeds should not be exceeded:

Dry processing: 15 m/s

Wet processing: 25 m/s

Higher cutting speeds will unavoidably result in more heat generation, faster tool wear and lubrication of the abrasive fleece tool during processing.

ABRASIVE FLEECE RINGS

ABRASIVE FLEECE RINGS FAPI-UNI WITH UNIVERSAL FOLD

Abrasive fleece in a 45° diagonal cut in open cooling fold with four or six layers. This results in a hard, aggressive facing on the one side, and on the other a soft, yielding facing for all materials. Abrasive fleece rings FAPI-UNI are highly elastic tools and are therefore suitable for optimum adaptability to the workpiece. The air-cooled abrasive fleece rings FAPI-UNI also enable strong contact pressure and high speeds without heating or burning.

Model: Cardboard core / Steel ring insert

Structure: 4 to 6 layers in various abrasive fleece qualities
Other numbers of layers possible

Dimensions: Diameter: 150 to 600 mm
Width: depending on the number of layers

Grain sizes: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine

Applications: For grinding and matting/satin finishing of all workpieces/materials on automatic grinding and polishing machines and/or manual processing on a pedestal polisher. Mainly processed materials are steel, aluminium, non-ferrous wide belt material and plastics.

ABRASIVE FLEECE RINGS FAPI-WAVE WITH WAVE FOLD

Our abrasive fleece ring FAPI-WAVE exists of regular wave fold, which guarantees an optimum service life of the tool. It is the most aggressive abrasive fleece ring in the Picard production range with simultaneous optimum cooling. Abrasive fleece rings FAPI-WAVE are used predominantly as wide rollers which are composed of individual abrasive fleece rings. Due to the precise fold it is possible to line up the individual abrasive fleece rings FAPI-WAVE together without gaps forming. This results in an entirely seamless and line-free surface on the workpiece during processing.

Ausführung: Cardboard core / Cardboard ring

Structure: 4 to 6 layers in various abrasive fleece qualities
Other numbers of layers possible

Dimensions: Diameter: 300 to 500 mm
Width: depending on the number of layers

Grain sizes: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine

Applications: For grinding and matting of all flat workpieces. Abrasive fleece rings FAPI-WAVE are used predominantly in automatic grinding and polishing machines, but they are also used for manual processing on a pedestal polishers.

SATIN FINISHING WHEELS / - ROLLERS

SATIN FINISHING WHEELS FAPI-SATALO

The surface treatment of metal takes place as a rule with satin finishing wheels which have an aluminium oxide facing. Grinding with this facing produces a silky gloss effect on the surface of the workpiece. This can be varied further with polishing additives. In this case, grinding compounds or grease - in very small amounts - are added during processing.

Structure: Abrasive fleece lamellae made of aluminium oxide glued onto a waterproof hard paper tube

Dimensions: Diameter: 100 to 450 mm
Width: 10 to 100 mm

Grain sizes: Ultra coarse, Heavy coarse, Extra coarse, Coarse, Medium, Fine, Very fine

Applications: Escalators, lift signs, railings, painting pretreatment, surgical instruments, stainless steel, brass and aluminium products, porcelain and ceramics, fittings

SATIN FINISHING WHEELS FAPI-SATSIC

Wood is generally surface-treated with satin finishing wheels which have a silicon carbide facing. Using this facing produces a silky gloss effect on the surface of the workpiece.

Structure: Abrasive fleece lamellae made of silicon carbide glued onto a waterproof hard paper tube

Dimensions: Diameter: 100 to 450 mm
Width: 10 to 100 mm

Grain sizes: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine, Micro fine

Applications: Moulding, doors, furniture, intermediate varnish sanding, etc.

SATIN FINISHING ROLLERS FAPI-SATALO UND FAPI-SATSIC

Structure: Abrasive fleece lamellae made of aluminium oxide or silicon carbide glued onto a waterproof hard paper tube

Dimensions: Diameter: 100 to 450 mm
Width: 100 to 2.500 mm

Grain sizes: **FAPI-SATALO:** Ultra coarse, Heavy coarse, Extra coarse, Coarse, Medium, Fine, Very fine
FAPI-SATSIC: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine, Micro fine

Applications: deburring, descaling, technical PCB processing, metal belt processing, decorative satin finishing

Advice:

For satin finishing wheels and -rollers the principle of course applies that they should only be used in conjunction with aluminium flanges! Please have a look at page 112 to get more information about aluminium flanges FAPI-SPANN!

SATIN FINISHING ROLLERS / MOUNTED FLAP WHEELS

SATIN FINISHING ROLLERS FAPI-FLEECE

Our satin finishing rollers FAPI-FLEECE consist of individual abrasive fleece lamellae. These lamellae are arranged fan-like around the axis and embedded in a plastic core. During operation, the satin finishing rollers FAPI-FLEECE work elastically – because of its facing with abrasive fleece lamellae – and adapts easily to the shape or contour of the workpiece.

Dimensions: Diameter: 100 mm / 110 mm
Width: 50 mm / 100 mm
Hole: 19 mm with keyway

Grain sizes: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine, Micro Fine

Applications: apparatus engineering and container construction, automotive engineering, tool and form construction

MOUNTED FLAP WHEELS FAPI-FLEECE

Mounted flap wheels FAPI-FLEECE consist of individual abrasive fleece lamellae. During operation, the mounted flap wheel FAPI-FLEECE works elastically - because of its facing with abrasive fleece lamellae - and adapts easily to the shape or contour of the workpiece. Mounted flap wheels FAPI-FLEECE have a shaft diameter of 6 mm and can be used on manual drills, flexible shafts, etc. with no problem.

Dimensions: Diameter: 40 to 80 mm
Width: 20 to 50 mm
Shaft: 6 mm

Grain sizes: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine, Micro Fine

Applications: apparatus engineering and container construction, automotive engineering, tool and form construction

SATIN FINISHING ROLLERS FAPI-FLEECELANE

Our satin finishing rollers FAPI-FLEECELANE consist of a continuous section of abrasive fleece. This wave-like arrangement enables continuous brush matting of surfaces. The use of special types of fleece makes satin finishing rollers FAPI-FLEECELANE elastic. As a result, they adjust effortlessly to the shape and contours of the workpiece.

Dimensions: Diameter: 100 mm
Width: 100 mm
Hole: 19 mm with keyway

Grain sizes: Coarse, Medium, Fine, Very fine, Super fine, Ultra fine

Applications: apparatus engineering and container construction, automotive engineering, tool and form construction

COMBINED SATIN FINISHING WHEELS / - ROLLERS

COMBINED SATIN FINISHING WHEELS FAPI-KOMBIALO

In metal working, our combined satin finishing wheels FAPI-KOMBIALO have a very high removal rate, while at the same time producing a silky gloss effect. The combined satin finishing wheels FAPI-KOMBIALO are used only for dry grinding.
Compared with satin finishing wheels, the combined satin finishing wheels feature a longer service life, a different grinding effect (i.e. from line formation to comma-line formation) and a stronger silky gloss effect.

Structure: Abrasive fleece and abrasive cloth lamellae made of aluminium oxide glued onto a waterproof hard paper tube

Dimensions: Diameter: 100 to 450 mm
Width: 10 to 100 mm

Grain sizes: as per specification

Applications: Canisters and kitchenware, coppersmith, food industry, vehicle construction, machining of stainless steel, copper, aluminium, brass, plastics, leather

COMBINED SATIN FINISHING WHEELS FAPI-KOMBISIC

In the woodworking industry, our combined satin finishing wheels FAPI-KOMBISIC are used for sanding untreated wood; for example, after profiling to provide a better paint surface or for use with edging machines for light bevel.
Combined satin finishing wheels FAPI-KOMBISIC can also be adapted to the wood profile being worked.

Structure: Abrasive fleece and abrasive cloth lamellae made of silicon carbide glued onto a waterproof hard paper tube

Dimensions: Diameter: 100 to 450 mm
Width: 10 to 100 mm

Grain sizes: as per specification

Applications: Mouldings, doors, furniture, intermediate varnish sanding, etc.

COMBINED SATIN FINISHING ROLLERS FAPI-KOMBIALO UND FAPI-KOMBISIC

Structure: Abrasive fleece and abrasive cloth lamellae made of aluminium oxide or silicon carbide glued onto a waterproof hard paper tube

Dimensions: Diameter: 100 to 450 mm
Width: 100 to 1.400 mm

Grain sizes: as per specification

Applications: Deburring, descaling, technical PCB processing, metal belt processing, decorative satin finishing

Advice:

For combined satin finishing wheels and -rollers the principle of course applies that they should only be used in conjunction with aluminium flanges! Please have a look at page 112 to get more information about aluminium flanges FAPI-SPANN!

COMBINED SATIN FINISHING WHEELS / - MOUNTED FLAP WHEELS

COMBINED SATIN FINISHING ROLLERS FAPI-KOMBI

Combined satin finishing rollers FAPI KOMBI with the combination of abrasive fleece and abrasive cloth are made of alternating lamellae of these two grinding materials. Both types of lamellae are arranged fan-like around the hole and embedded in a plastic core. The level of abrasiveness of the combined satin finishing rollers FAPI-KOMBI during operation – due to its abrasive fleece and abrasive cloth lamella facing – is between that of a satin finishing roller FAPI-FLEECE with only abrasive fleece and that of a flap grinding roller FAPI-SAND with only abrasive cloth.

Dimensions: Diameter: 100 mm
Width: 50 mm / 100 mm
Hole: 19 mm with keyway

Grain sizes: Medium/K60, Medium/K80, Fine/K100, Fine/K150, Fine/K240
- Further grain sizes on request -

Applications: Cleaning, derusting, pre-grinding, structuring, roughening

COMBINED MOUNTED FLAP WHEELS FAPI-KOMBI

The combined mounted flap wheels FAPI-KOMBI with a combination of abrasive fleece and abrasive cloth are made of alternating lamellae of these two grinding materials. Both types of lamellae are fastened fan-like around the tool's axis. The level of abrasiveness of the combined mounted flap wheel FAPI-KOMBI during operation - because of its abrasive fleece and abrasive cloth facing - lies between that of a mounted flap wheel FAPI-FLEECE with only abrasive fleece and a mounted flap wheel FAPI-SAND with only abrasive cloth lamellae.

Dimensions: Diameter: 40 to 80 mm
Width: 20 to 50 mm
Shaft: 6 mm

Grain sizes: Medium/K60, Medium/K80, Fine/K100, Fine/K150, Fine/K240

Applications: Cleaning, derusting, pre-grinding, structuring, roughening

CLEANING ROLLERS / CLEANING PLATES / CLEANING DISCS

CLEANING ROLLERS FAPI-CLEAN

Cleaning rollers FAPI-CLEAN are made of nylon fabric interspersed with grinding grain. The high-quality processing of the carefully selected material, makes the cleaning roller FAPI-CLEAN a tool that is perfect for use in the metal working, wood processing and stone industries.

Dimensions: Diameter: 100 mm
Hole/Thread: 19 mm keyway / M14

Applications: Cleaning and descaling welding seams, deep pore removal of rust, oxide layers and paint, cleaning wooden beams and bricks

CLEANING PLATES FAPI-CLEAN

Cleaning plates FAPI-CLEAN produce very good results when grinding and cleaning metal, stainless steel and wood, and are therefore ideal for use in the preliminary stage before grinding/polishing.

Dimensions: Diameter: 115 mm / 125 mm / 180 mm
Hole/Thread: 22 mm / M14

Applications: Removing paint, rust, scale and weld pits from metal without scratching, cleaning wood and plastics, removing paint from wood, removing blue colouration from stainless steel

CLEANING DISCS FAPI-CLEAN

The cleaning discs FAPI-CLEAN can only be used in conjunction with a mandrel. They produce top results when grinding and cleaning metal, stainless steel, wood or plastic, and are therefore ideal for use in the preliminary stage before grinding/polishing.

Dimensions: Diameter: 100 mm / as per specification
Hole: 22 mm / as per specification

Applications: Removing paint, rust, scale and weld pits from metal without scratching, cleaning wood and plastics, removing paint from wood, removing blue colouration from stainless steel

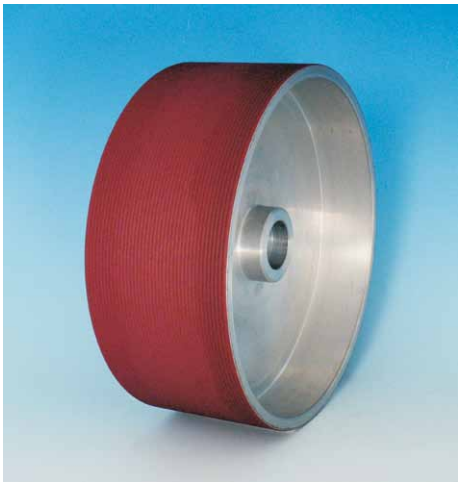
Advice:

For cleaning discs the principle of course applies that they should only be used in conjunction with a mandrel! Please have a look at page 112 to get more information about mandrels FAPI-SPANN!

SERRATION GRINDING WHEELS / WOOD PROFILE WHEELS

SERRATION GRINDING WHEELS FAPI-SERRA

Serration grinding wheels FAPI-SERRA for grinding knives, scissors, tweezers, tongs, surgical instruments, etc. are produced on a customer-specific basis with the most appropriate serration.

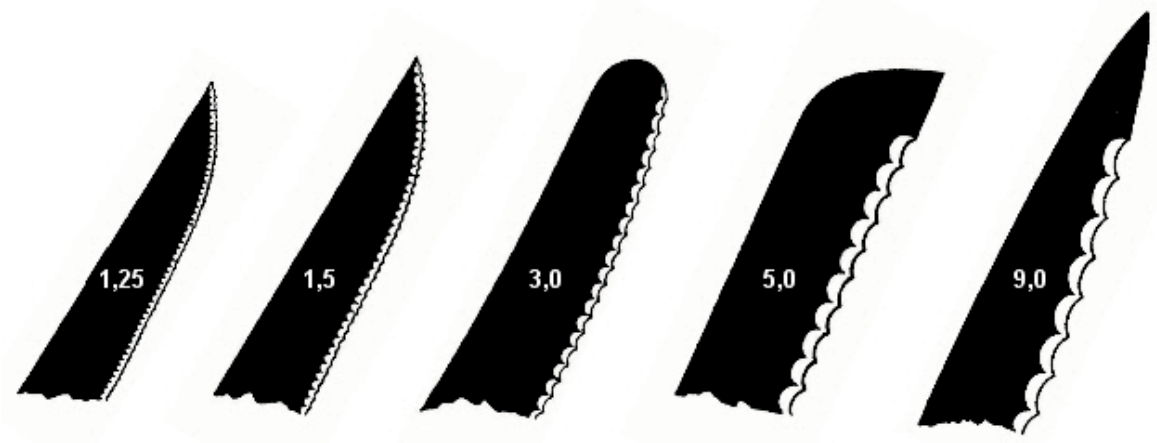


Dimensions:
Diameter: 150 to 300 mm
Width: 80 mm / 120 mm
Hole: as per specification

Serration types: wavy serration / pointed serration / micro serration / special serration

Profiles: 0,25 to 9,0 mm

Applications: Household knives, table knives, tweezers, tongs, surgical instruments, household scissors, hairdressing scissors



WOOD PROFILE WHEELS FAPI-ELASTIK

Solid and veneered wood profiles and profiled MDF panels are ground after milling, for example to remove chatter marks on the workpiece or to improve excessive roughness at plank. Using our adaptable wood profile wheels FAPI-ELASTIK enables an optimum surface quality to be obtained on profiles, edges and mouldings of any wood types.

Dimensions:
Diameter: 40 to 200 mm
Width: 20 to 50 mm
Hole: as per specification

Applications:
CNC routers
Carousel milling machines
Longitudinal copy milling machines

SISAL AND SISAL COTTON TOOLS

MATERIAL "SISAL"

Sisal is a relatively new natural fibre which is derived from the agave which grows in South Africa and South America. This high-quality and highly robust natural fibre is characterised by its toughness, its tensile strength and, in particular, its stiffness.

Because of these outstanding mechanical and chemical properties, the sisal fibre has become extremely popular for (pre-)polishing.

We exclusively use high-quality sisal fibres in our products.

PROCESS STEP "(PRE-)POLISHING"

Sisal and sisal cotton tools are used predominantly for (pre-)polishing. Sisal and sisal cotton tools differ in hardness. Pure sisal tools have a harder effect, whereas sisal cotton tools are softer. The pre-polishing stage is often preceded by grinding and followed by high gloss polishing.

GRINDING

(PRE-)POLISHING

MIRROR FINISHING

Picard tip:

To save time when “(pre-)polishing”, we recommend grinding up to a minimum grain size of 240, so that a high-quality surface can be polished.

BRUSHING AND POLISHING COMPOUNDS

High-quality surfaces can be achieved by using suitable brushing and polishing compounds with our sisal and sisal cotton tools, making subsequent processing unnecessary.

The polishing result corresponds to a good industrial finish (no high-polish or mirror finish).

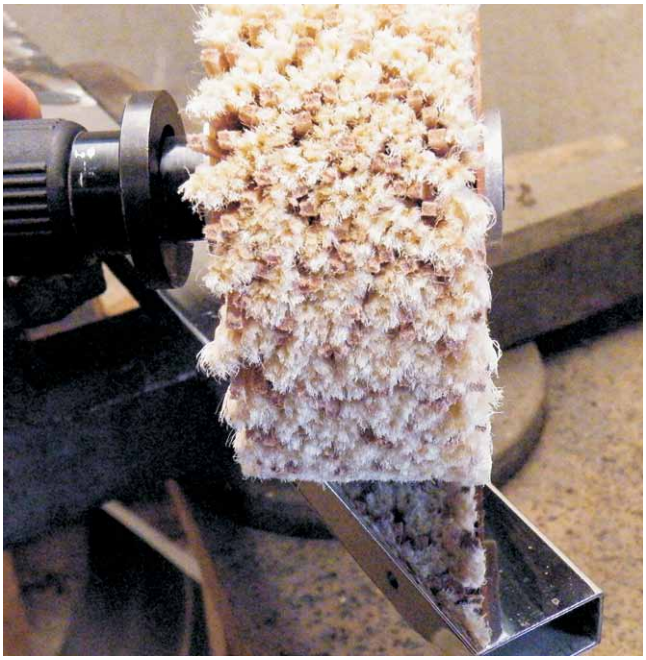
IMPREGNATIONS

The choice of impregnation depends primarily on the use and the material to be processed by the customer.

Advantages of impregnations:

- Longer service life (up to 100%)
- Stronger polishing effect
- Saving grinding compound
- Environmental compatibility

IMPREG-NATIONS	COLOUR	DESCRIPTION	MATERIAL
001	orange	Increases service life Improves adhesion of polishing compound	universal usable
002	blue	Very sticky Fibre-stiffening effect Specially for stainless steel	Aluminium Stainless steel
003	orange-red	Very sticky Greater fibre-stiffening effect	Aluminium Stainless steel, Steel
004	white yellow	Hard and firm Extremely aggressive action	Steel
005	yellow	Very hard and firm Extremely aggressive action	Steel
006	green	Very hard, firm and brittle Very extreme aggressive action	Steel
007	brown	Increases service life Improves adhesion of polishing compound Very sticky	Steel



SISAL WHEELS / SISAL CLOTH WHEELS / SISAL FABRIC RINGS

SISAL WHEELS FAPI-SLAB

The sisal wheels FAPI-SLAB are made of dense, full-round sisal fabric. This structure increases the strength of sisal wheels FAPI-SLAB.

Model: Cardboard core / without cardboard core

Structure: Full-round sisal fabric layers

Dimensions: Diameter: 50 to 1.500 mm
Width: 5 to 30 mm on the number of layers
Hole: as per specification

Applications: Pre-polishing, fine grinding, brushing and matting of flat and lightly shaped workpieces. Processing of raw surfaces and scratched workpieces on automated polishers and/or manually on pedestal polishers.

SISAL CLOTH WHEELS FAPI-C

Sisal cloth wheels FAPI-C are made of a combination of dense, full-round sisal and cotton cloth. The structure of full wheels made of sisal and cloth significantly increases the strength of the sisal cloth wheels FAPI-C.

Model: Cardboard core / without cardboard core

Structure: Full-round sisal fabric layers / full-round cloth layers
(layer ratio 1:2)
Other numbers of layers possible

Dimensions: Diameter: 50 to 1.500 mm
Width: 5 to 30 mm on the number of layers
Hole: as per specification

Applications: Pre-polishing, fine grinding, brushing and matting of flat and lightly shaped workpieces. Processing of raw surfaces and scratched workpieces on automated polishers and/or manually on pedestal polishers.

SISAL FABRIC RINGS FAPI-RGZ

Solid sisal fabric rings made of 8-layer sisal fabric in a 45° angle cut, i.e. warp and weft fabrics are at an angle of 45° to the outer diameter. This prevents the fabrics from pulling out and therefore also prevents fraying of the sisal fabric rings FAPI-RGZ, enabling clean working and significantly increasing tool service life. The sisal fabric rings FAPI-RGZ have a good aggressive effect whilst being quiet-running during operation.

Model: Cardboard core / Without cardboard core / Steel ring insert

Structure: 8 layers of sisal fabric
Other numbers of layers possible

Dimensions: Diameter: 200 to 500 mm
Width: 5 to 30 mm on the number of layers
Hole: as per specification

Applications: Pre-polishing, fine grinding, brushing and matting of flat and lightly shaped workpieces (flatware, cooking pots, aluminium components etc.).
For pre-polishing or polishing all workpieces/materials on automated polishing machines and/or when processing manually on a pedestal polisher.

SISALCORD BRUSHES / SISALCORD RINGS / SISALCORD LEATHERBRUSHES

SISALCORD BRUSHES FAPI-SCC

The flexible sisalcord brushes FAPI-SCC are made of 8-fold braided sisalcord. The sisalcord prevents grinding streaks on the workpiece.

Model: Cardboard core / Cardboard ring / Steel ring insert

Dimensions:
Diameter: 150 to 600 mm
Width: 30 to 200 mm
Hole: as per specification

Applications: Pre-polishing, fine grinding, brushing and matting of flat, lightly and heavily shaped workpieces. Sisalcord brushes FAPI-SCC are used primarily for cutlery, pipes and aluminium profiles worked on automated polishers and/or manually on polishing stands.

SISALCORD RINGS FAPI-SC

The flexible sisalcord rings FAPI-SC are made of 8-fold braided sisalcord. The sisalcord prevents grinding streaks on the workpiece.

Model: Cardboard core / Cardboard ring / Steel ring insert

Dimensions:
Diameter: 150 to 600 mm
Width: 15 to 30 mm
Hole: as per specification

Applications: Pre-polishing, fine grinding, brushing and matting of flat, lightly and heavily shaped workpieces. Sisalcord rings FAPI-SC are used primarily for cutlery, pipes and aluminium profiles worked on automated polishers and/or manually on pedestal polishers.

SISALCORD LEATHERBRUSHES FAPI-SKL

The sisalcord leatherbrushes FAPI-SKL are used for the smoothening of hot wax coatings on wooden parts such as cabinets or furniture parts. When due to the wax coating, single wood fibers are generated and the surface is too rough, the sisal cord leather brushes are ideally used. While the wax is expelled by the sisal, the leather provides the bright shine.

Model: Cardboard core

Structure: 3 x 3 mm strong sisalcords and leather (1:1 division)
Other divisions possible

Dimensions:
Diameter: 160 to 400 mm
Width: 30 to 100 mm
Hole: as per specification

Applications: Cleaning and light bevel of foil-coated components
Finishing painted and waxed components
Finishing hot wax on laminated furniture
Removing glue residues
Polishing untreated wood

SISAL COTTON RINGS

SISAL COTTON RINGS FAPI-UNI WITH UNIVERSAL FOLD

The universal fold gives the sisal cotton rings FAPI-UNI a lightly flexible facing. This provides for both a brushing effect and a polishing effect.

Model: Cardboard core / without cardboard core / steel ring insert

Structure: 3 layers of sisal fabric and 6 layers of cloth (cotton)
Other numbers of layers possible

Dimensions: Holes, widths and diameters of the sisal cotton rings FAPI-UNI can be selected individually.

Applications: For pre-polishing, fine grinding, brushing and matting of flat, lightly and heavily shaped workpieces/materials on automated polishers and/or when polishing by hand at a pedestal polisher.
Sisal cotton rings with universal fold are especially suited for polishing aluminium and stainless steel.

SISAL COTTON RINGS FAPI-PR WITH PR-FOLD

The special contra rotating PR fold provides the sisal cotton rings FAPI-PR with a large and resilient facing mass. This achieves a strong brushing effect and at the same time a polishing effect.

Model: Cardboard core / Cardboard ring

Structure: 3 layers of sisal fabric and 6 layers of cloth
Other numbers of layers possible

Dimensions: Holes, widths and diameters of the sisal cotton rings FAPI-PR can be selected individually.

Applications: For pre-polishing, fine grinding, brushing and matting of flat and shaped workpieces/materials on automated polishers and/or when polishing by hand at a pedestal polisher.

SISAL COTTON RINGS FAPI-WAVE WITH WAVE FOLD

The wave fold provides the sisal cotton rings FAPI-WAVE with a lightly flexible facing. Both layers - cotton and sisal - are laid over the ring in even waves. This simultaneously delivers an even brushing effect as well as an even polishing effect.

Model: Cardboard core / without cardboard core

Structure: 3 layers of sisal fabric and 6 layers of cloth
Other numbers of layers possible

Dimensions: Holes, widths and diameters of the sisal cotton rings FAPI-WAVE can be selected individually.

Applications: For pre-polishing, fine grinding, brushing and matting of flat and lightly shaped workpieces/materials on automated polishers and/or when polishing by hand at a pedestal polisher.

CLOTH LAPPERS / SISAL CLOTH LAPPERS / CLOTH LEATHER LAPPERS

CLOTH LAPPERS FAPI-T

Cloth lappers FAPI-T are used in place of polishing rings to remove especially strong hot-melt adhesive residues. They are also used for polishing the edges of thick-walled plastic claddings.

Dimensions:
Diameter: 160 mm / 200 mm
Width: 20 to 50 mm
Hole: as per specification

Applications:
Removing hot-melt adhesive residues on wood veneers
Polishing the edges of veneer sheets
Polishing thick-walled plastic claddings
Deburring plastics
Deburring or polishing metals (cutter knives, etc.)

SISAL CLOTH LAPPERS FAPI-ST

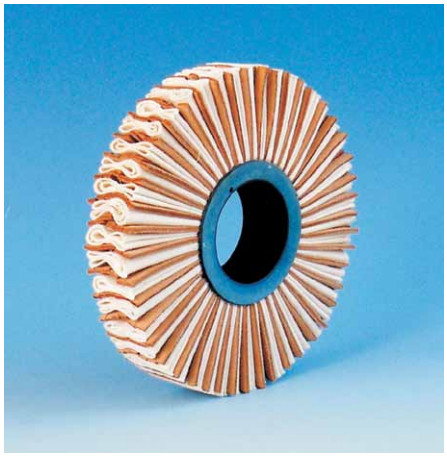
Sisal cloth lappers FAPI-ST are used in place of polishing rings to remove especially strong hot-melt adhesive residues. They are also used for pre-polishing and polishing the edges of thick-walled plastic claddings.

Dimensions:
Diameter: 160 mm / 200 mm
Width: 20 to 50 mm
Hole: as per specification

Applications:
Removing hot-melt adhesive residues on wood veneers
Pre-polishing/polishing the edges of veneer sheets
(Pre-)polishing thick-walled plastic claddings
Deburring plastics
Deburring or polishing metals (cutter knives, etc.)

CLOTH LEATHER LAPPERS FAPI-TL

The combination of leather and cloth delivers a long service life for our cloth leather lappers FAPI-TL, improves polishing results and achieves a more even and better shape (rounding) of the plastic edge than, for example, a polishing ring, which is made only from cloth.



Dimensions:
Diameter: 160 mm / 200 mm
Width: 20 to 50 mm
Hole: as per specification

Applications:
Removing hot-melt adhesive residues

COMBI ROLLERS / LEATHER ROLLERS

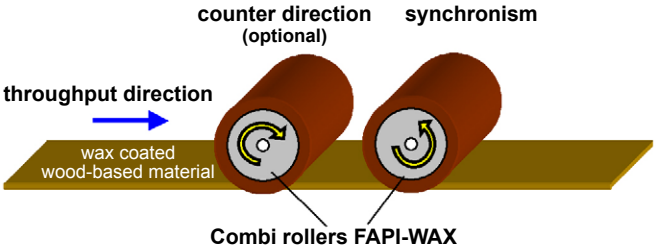
COMBI ROLLERS FAPI-WAX

Combi rollers FAPI-WAX with a lamella structure made of top quality materials (sisal, leather, fleece, etc.) have been developed in cooperation with our customers for final finishing of oil/wax coatings on furniture fronts. It is important to ensure correct timing with the dried wax coating because this can differ depending on the structure of the wax. On average the drying time is approx. 2 hours.

Dimensions:

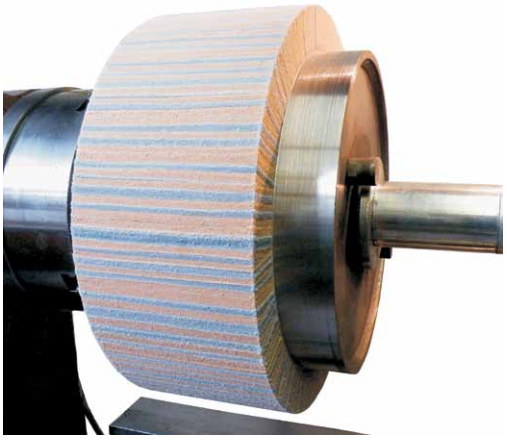
	Diameter:	200 to 400 mm
	Width:	100 to 1.500 mm
	Hole:	as per specification

Examples of uses: Finishing of oil/wax coatings on furniture fronts



LEATHER ROLLERS FAPI-BRIGHT

These days, the very highest quality finish is called for on steel strips. With our leather rollers FAPI-BRIGHT you can achieve an optimum grinding/polishing finish on steel strips. Many companies in the steel strip sector work with our leather rollers today, attaining an optimum surface finish on their products.

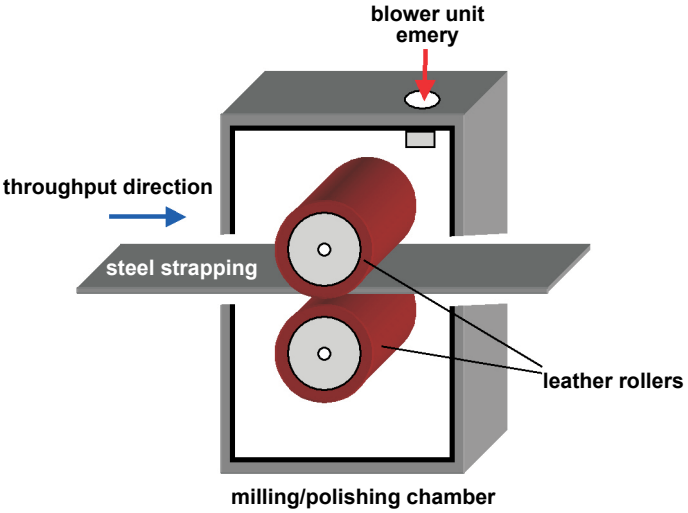


Dimensions:

	Diameter:	200 to 400 mm
	Width:	100 to 490 mm
	Hole:	as per specification

Process:

The steel strips are fed to a grinding/polishing chamber - predominantly directly from the coil. In this chamber one leather roller is installed at the top and another at the bottom. These achieve the desired grinding/polishing effect during subsequent processing. Emery with the required grain size is introduced by means of compressed air via the blower unit installed at the opening on the top side of the chamber. This is distributed over the rotating leather rollers as well as over the steel strip. The finer the emery, the finer the subsequent surface finish on the steel strapping. Decisive variables that influence the process are the steel strapping feed, the speed of the leather rollers FAPI-BRIGHT and the correct dosing of the emery feed.



POLISHING TOOLS MADE OF COTTON

MATERIAL "COTTON"

Cotton is a natural fibre made of the seed hairs of the *Gossypium* plant species.

Besides being very strong and stiff, cotton fibres are extremely resilient. Cotton fibres are alkali resistant, but not acid resistant.

PROCESS STEP "MIRROR FINISHING"

Cotton polishing tools are mainly used for (pre-)polishing and mirror finishing. Thanks to the wide range of cloth qualities and folds, custom polishing tools can be produced to suit each individual application. With the right polishing tool, it is often possible to achieve a perfect surface quality.

GRINDING

(PRE-)POLISHING

MIRROR FINISHING

BRUSHING AND POLISHING COMPOUNDS

High gloss and mirror finishes can be achieved by using suitable polishing compounds with our polishing tools.

FOLDS

Folds are a determining factor in the strength of polishing tools. Basically, there are three types of folds:

Closed fold

Very firm to hard ring for aggressive pre-polishing

Universal fold

Standard fold in medium-hard version

Open fold

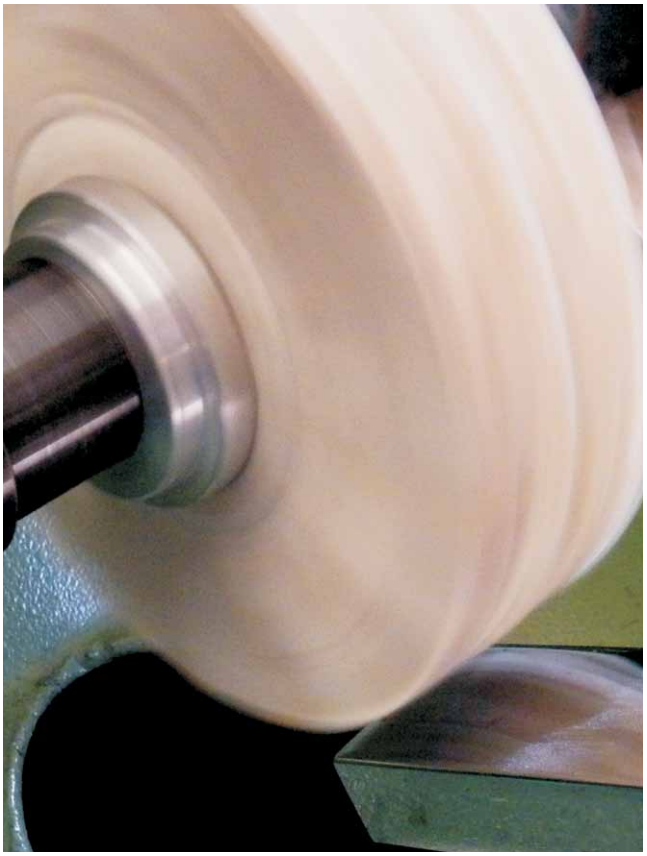
Soft to very soft with good cooling properties for deep insertion into workpiece

CLOTH QUALITIES

DESIGNATION	WEIGHT	DESCRIPTION
New coloured	150-170 g/m²	...
New ticking	---	...
Cotton 150	150 g/m²	...
Cotton 190	190 g/m²	Standard cloth
Cotton 210	210 g/m²	...
Cotton 230	230 g/m²	...
Cotton 250	250 g/m²	...
Cotton 280	280 g/m²	...
Molton A	185 g/m²	Cloth roughened on both sides, medium soft
Molton B	169 g/m²	Cloth roughened on both sides, soft
Molton C	225 g/m²	Cloth roughened on both sides, very soft

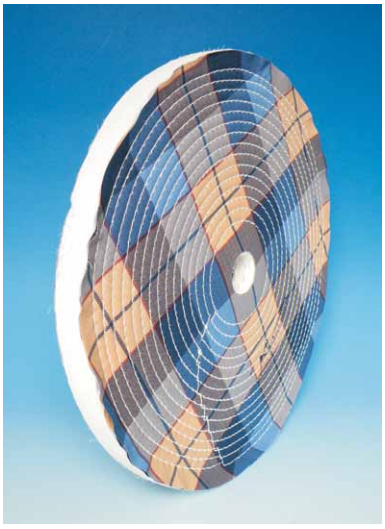
IMPREGNATIONS

The service life of our polishing tools can sometimes be increased with our impregnations.



POLISHING WHEELS / BUFFING WHEELS / FLAP POLISHING WHEELS

POLISHING WHEELS FAPI-SEAM



The stitched polishing wheels FAPI-SEAM are assembled from sheets of even sizes. The specific lay is held together by tightly spaced and adjacent stitching seams.

Special feature:

The stability of the polishing wheel can be influenced by increasing the number of stitches.

Dimensions:

Diameter:	30 to 1.500 mm
Width:	freely selectable
Hole:	35 mm (Standard)
	Other holes on request.

Applications: For pre-polishing, polishing and finishing of flat and lightly shaped workpieces/materials on automated polishing machines and/or when processing manually on a pedestal polisher.

BUFFING WHEELS FAPI-BUFF

The buffing wheels FAPI-BUFF are made of individual sheets of various cloth qualities. Due to this design, buffing wheels FAPI-BUFF are also called loose, completely rounded polishing wheels.

Special feature:

The polishing wheels FAPI-BUFF are very soft and flexible due to only one stitch near the hole.

Dimensions:

Diameter:	30 to 1.500 mm
Width:	freely selectable
Hole:	35 mm (Standard)
	Other holes on request.

Applications: For pre-polishing, polishing and finishing flat and lightly shaped workpieces. Workpieces/materials on automated polishing machines and/or when processing manually on a pedestal polisher.

FLAP POLISHING WHEELS FAPI-WOBBLE

Flap polishing wheels FAPI-WOBBLE are made from tailored, star shaped wedges, strips or larger pieces which are reach to the wheel's centre point. The top sheets of the flap polishing wheel FAPI-WOBBLE and intermediate layers are made from full round material. The specific lay is held together by stitching which can be varied as desired.

Dimensions:

Diameter:	200 to 1.500 mm
Width:	freely selectable
Hole:	35 mm (Standard)
	Other holes on request.

Applications: When polishing, flap polishing wheels are more aggressive than buffing wheels, i.e. they work on the workpiece surface more intensely. They are ideal especially when pre-polishing, polishing and finishing flat and lightly shaped workpieces.

POLISHING RINGS

POLISHING RINGS FAPI-UNI WITH UNIVERSAL FOLD

The polishing rings FAPI-UNI will be produced in a 45° diagonal cut in open, cooling fold and various layers and densities. This produces a solid, aggressive facing, and yet soft, yielding facing for all materials. The air cooled ring allows strong contact pressure and high speed without warming or burning. Polishing rings FAPI-UNI are often used in the car industry.

Model: Cardboard core / without cardboard core / steel ring insert

Structure: 16 layers in a large variety of cloth qualities
Other numbers of layers possible

Fold: universal

Dimensions: Diameter: 150 to 600 mm
Width: 10 to 25 mm depending on the number of layers

Applications: Can be used universally for pre-polishing and polishing of all workpieces/ materials on automated polishing machines and/or when processing manually on a pedestal polisher.

POLISHING RINGS FAPI-Z WITH Z FOLD

The polishing rings FAPI-Z will be made of cotton cloth in four groups of folds each with four layers of cloth in rough folds That implies a large facing mass with good resilience. Polishing rings FAPI-Z will be used in the fittings industry, but also universally usable.

Model: Cardboard core / without cardboard core

Structure: 4 x 4 layers or 8 x 2 layers in a large variety of cloth qualities
Other numbers of layers possible

Fold: open

Dimensions: Diameter: 100 to 1.000 mm
Width: 10 to 25 mm depending on the number of layers

Applications: For pre-polishing or polishing of flat and lightly shaped workpieces/ materials on automated polishing machines and/or when processing manually on a pedestal polisher.

POLISHING RINGS FAPI-PR WITH PR FOLD

The polishing rings FAPI-PR are made of cotton cloth in four groups of folds each with four layers of cloth in rough folds. That implies a large facing mass with good resilience.

Model: Cardboard core / without cardboard core

Structure: 4 x 4 layers or 8 x 2 layers in a large variety of cloth qualities
Other numbers of layers possible

Fold: open

Dimensions: Diameter: 150 to 1.000 mm
Width: 10 to 25 mm depending on the number of layers

Applications: For pre-polishing or polishing all workpieces/materials on automated polishing machines and/or when processing manually on a pedestal polisher.

POLISHING RINGS / POLISHING ROLLERS

POLISHING RINGS FAPI-WAVE WITH WAVE FOLD

Polishing rings FAPI-WAVE are made of cotton cloth with a regular wave fold. They are the most aggressive polishing rings with, at the same time, optimum cooling.

Model: Cardboard core / Cardboard ring

Structure: 15 layers in a large variety of cloth qualities
Other numbers of layers possible

Fold: closed

Dimensions: Diameter: 300 to 500 mm
Width: 10 to 25 mm depending on the number of layers

Applications: For pre-polishing, polishing and finishing of all flat workpieces.
These polishing rings are used particularly on automated polishing machines, but also when processing manually on a pedestal polisher.

POLISHING RINGS FAPI-V WITH V FOLD

Our polishing rings FAPI-V made with V-shaped cotton cloth fold provide excellent cooling. The V- fold makes the polishing rings FAPI-V very flexible during polishing.

Model: Cardboard core / Cardboard ring

Structure: 16 layers in a large variety of cloth qualities
Other numbers of layers possible

Fold: closed

Dimensions: Diameter: 200 to 600 mm
Width: 10 to 25 mm depending on the number of layers

Applications: For pre-polishing, polishing and finishing of all (even heavily shaped) workpieces.
These polishing rings can also be used to polish and finish plastics and painted surfaces. They are used mainly on automated polishing machines and/or when processing manually on a pedestal polisher.

POLISHING ROLLERS FAPI-GLAM

Due to their design the polishing rollers FAPI-GLAM are flexible and adapt optimally to the treated workpiece. They should be used together with polishing compound to reach most different polishing results on steel, stainless steel, non-ferrous metals, glass, plastic, marble and stone.

Dimensions: Diameter: 100 mm
Width: 100 mm
Hole: 19 mm with keyway

Cloth qualities: Cotton (medium)
Molton A (soft)
Molton B (super soft)

Advice:

For the mounting and working with polishing wheels, polishing rings and similar tools safety instructions of the Industrieverband Garne - Gewebe - Technische Textilien e.V. have to be observed. You may download them at our website at www.picard-kg.com/download as pdf-file or directly by phone or e-mail.

FELT TOOLS

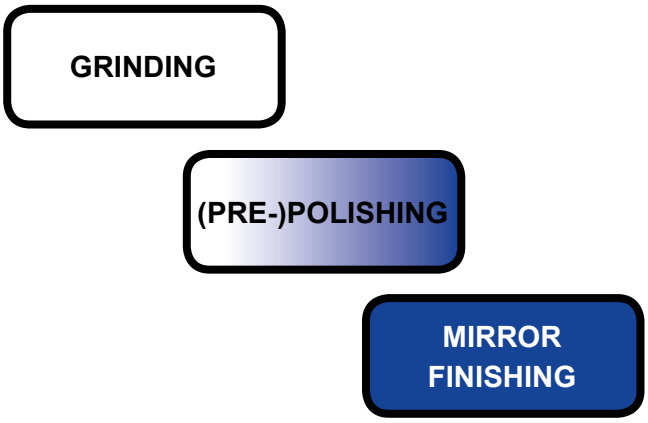
MATERIAL "WOOL FELT"

Felts can be divided into wool felts, needle felts and fleeces. Wool felt is the most popular version in the polishing industry. Its raw material is the very fine, high-quality Merino sheep's wool. This wool can be felted and stiffened by exposing it to moisture, heat and friction. This creates a homogeneous textile surface: wool felt. Wool felt has the following advantages:

- Flame-resistant
- Very good die-cutting properties
- Constantly maintains its elasticity
- Produced without chemical additives
- Age-resistant
- Temperature range from -40°C to 110°C
- Highly abrasion resistant

PROCESS STEP "MIRROR FINISHING"

Besides pre-polishing and polishing, felt tools are primarily used to achieve a mirror finish. The hardness (specific weight) of the felt tools is a decisive factor in the polishing process. Before mirror finishing, it is necessary to perform a grinding and possibly also a pre-polishing or polishing step.



Picard tip:

To save time when mirror finishing, we recommend grinding up to a minimum grain size of 400, possibly followed by a pre-polish, so that a high-quality mirror finish can be achieved in a short space of time.

POLISHING COMPOUNDS

High-quality surfaces can be achieved by using suitable polishing compounds with our felt tools.

The result will be a very good high-gloss polish or a mirror finish.

TECHNICAL SPECIFICATION OF WOOL FELT

The specific weight (for felt, also known as the gross density) is the measure of strength of a felt. The specific weight is defined in DIN 61200 (see table) and is calculated according to the following formula:

$$\text{Specific weight } [\text{in kg/dm}^3] = \frac{\text{Mass [in kg]}}{\text{Thickness [in mm] x Length [in mm] x Width [in mm]}}$$

SOFT	MEDIUM	SOLID	HARD
W1 0,08	M1 0,18	F1 0,32	H1 0,52
W2 0,10	M2 0,20	F2 0,36	H2 0,56
W3 0,12	M3 0,22	F3 0,40	H3 0,60
W4 0,14	M4 0,25	F4 0,44	H4 0,64
W5 0,16	M5 0,28	F5 0,48	H5 0,68
	M6 0,30		

RECOMMENDED APPLICATIONS

Based on our own experience we recommend specific weights for felt tools for use on different materials.

MATERIAL	PRE-POLISHING	POLISHING	MIRROR FINISHING
Iron	H2 to H4	H2	F5 to H1
Steel	H2	H2	H1
Brass	H1 to H2	F5 to H1	F3 to F4
Copper	H1	F4 to H1	F3 to F4
Gold, silver	H1 to H2	F4 to H1	F2 to F5
Glass	H1 to H4	H1 to H2	H1
Marble	H2	F5 to H1	F3 to H1
Granite	H2 to H4	H1 to H2	F5
Ivory	H1 to H2	F4 to H1	F3

FELT WHEELS / FELT BELTS / FELT SLEEVES

FELT WHEELS FAPI-FILZ

Felt wheels FAPI-FILZ are used predominantly for mirror finishing. They are used both, in the metal industry with polishing compound, and in the plastic industry with polishing wax. Other uses of felt wheels FAPI-FILZ include the polishing of gems and the rough and fine finishing of light metals.

Dimensions:	Diameter:	100 to 500 mm
	Width:	10 to 50 mm
	Hole:	as per specification
Material:	Hair felt / Merino wool felt / wool felt	
Specific weights:	0,36 to 0,68 g/cm^3	
Applications:	Metal working	
	Wood processing	
	Plastics processing	
	Stone processing	

FELT BELTS FAPI-FILZ

Felt belts FAPI-FILZ are in use in industry today for mirror finishing, i.e. for surface finishing. In this process the polishing grain is applied to the surface of the felt belts in form of solid or liquid polishing compound or polishing emulsion and held in the dense felt fibre structure. During processing, and with the correct choice of technical felt, it is possible for temperatures of up to 700°C to occur without having an effect on the felt belt FAPI-FILZ. In practical use, felt belts FAPI-FILZ can attain surface roughness on workpieces in the µ range.

Dimensions:	Thickness:	5 to 25 mm
	Width:	up to 2.100 mm
	Length:	up to 23.000 mm
Applications:	Metal working	
	Wood processing	
	Plastics processing	
	Stone processing	

FELT SLEEVES FAPI-FILZ

The felt sleeves FAPI-FILZ will be used combined with an expander roller and polishing compound for the mirror polishing. Attention should be paid to use only one polishing compound on one felt sleeve.

Dimensions:	100/110 x 100 mm
Applications:	Metal working
	Plastics processing
	Stone processing

FELT POLISHING DISCS

FELT POLISHING DISCS FAPI-M14

The felt polishing discs FAPI-M14 in various felt qualities are ideal for mirror finishing. Felt polishing discs FAPI-M14 work best on an adjustable angle grinder. These tools can be used to attain surfaces with a mirror finish above all in metal working, particularly stainless steel finishing.

Dimensions: Diameter: 115 mm
Facing height: 30 mm / as per specification
Thread: M14

Applications: Steel, stainless steel, non-ferrous metals, glass, plastic, marble and stone

FELT POLISHING DISCS FAPI-TRIM

The felt polishing discs FAPI-TRIM in various felt qualities are ideal for mirror finishing. With their tool mountings, felt polishing discs FAPI-TRIM are ideal for use in stone processing.

Dimensions: Diameter: 115 mm
Facing height: 30 mm / as per specification
Hole: 14 mm with quick release system

Applications: Steel, stainless steel, non-ferrous metals, glass, plastic, marble and stone

FELT POLISHING DISCS FAPI-MIRROR

The felt polishing discs FAPI-MIRROR M14 can be made with different felt qualities. They are ideal particularly for mirror finishing.

Dimensions: Diameter: 115 mm
Facing height: 35 mm
Hole: M14

Applications: Steel, stainless steel, non-ferrous metals, glass, plastic, marble and stone

FELT POLISHING DISCS FAPI-EDGE

The felt polishing disc FAPI-EDGE is particularly suitable for mirror fishing. Though especially semi-circulars and edges can be treated with the felt polishing disc FAPI-EDGE.

Dimensions: Diameter: 125 mm
Facing height: 25 mm
Thread: M14

Applications: Steel, stainless steel, non-ferrous metals, glass, plastic, marble and stone

FELT ROLLERS / FELT POLISHING POINTS

FELT ROLLERS FAPI-SHINE

Polished finishes right up to mirror finishes can be achieved on steel, stainless steel, non-ferrous metals, glass, plastic, marble and stone with felt rollers FAPI-SHINE. Felt rollers FAPI-SHINE are used with polishing compound to achieve a high gloss mirror finish.

Dimensions:

Diameter:	100 mm
Width:	50 to 100 mm
Hole/Thread:	19 mm with keyway / M14

FELT ROLLERS FAPI-GLOSS

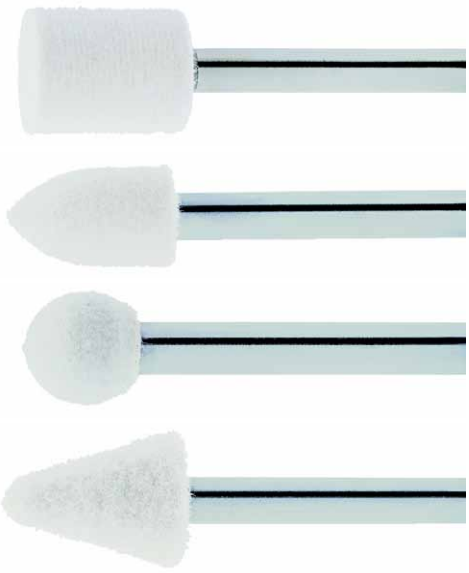
Felt rollers FAPI-GLOSS are made with high-quality, hard-compressed wool felt. The high edge stability and effectiveness of the felt roller FAPI-GLOSS are attained due to the hardness and density of the felt body. Our felt rollers FAPI-GLOSS, which possess superb elasticity, are used in particular on large and easily accessible surfaces. In order to attain an optimum surface finish, our felt rollers FAPI-GLOSS are used with polishing compound.

Dimensions:

Diameter:	100 mm
Width:	100 mm
Hole:	19 mm with keyway, as per specification

FELT POLISHING POINTS FAPI-FILZ

Felt polishing points FAPI-FILZ are made with high-quality, hard-compressed wool felt. The high edge stability and effectiveness of the felt polishing point are attained due to the hardness and density of the felt body. Our felt polishing points FAPI-FILZ, which are highly elastic, are used in particular for complicated shapes or very hard-to-reach areas like corners, edges and angles. To achieve an optimum surface finish, very hard felt polishing points are often used with diamond compound.



Shapes: Cylindrical / arch pointed nose / spherical / conical round nose

Dimensions: depending on the shape

BRUSHING TOOLS

MATERIAL

Our brushes are made of the very best quality materials. By selecting the materials carefully we guarantee a high safety standard for our brushes.

DESIGNATION	FACING THICKNESS	APPLICATION
Steel wire	0,06 to 1,00 mm	Derusting, deburring, descaling, roughening, paint removal, stripping
Bessemer wire	0,06 to 0,25 mm	Surface technique with additional use of oils, greases or grinding pastes, polishing and matting
Brass-plated steel wire	0,15 to 0,40 mm	Heavy-duty deburring Roughening of leather and rubber Pipe deburring Wire and wood processing
VA-wire	0,08 to 0,80 mm	Processing of VA-workpieces and VA-tools, e.g. surgical instruments
Non-ferrous metals (new silver,copper, phosphor-bronze)	0,06 to 0,50 mm	Processing of brass parts, colouring, textile industry
Brass (Non-ferrous metals)	0,06 to 0,30 mm	Processing of brass parts, colouring, textile industry
Nylon	0,10 to 1,50 mm	Cleaning conveyor belts, sorting, washing / dedusting
Grinding bristles	0,45 mm grain 500 0,55 mm grain 320 0,89 mm grain 180 1,00 mm grain 120 1,20 mm grain 80 1,40 mm grain 46	Edge rounding, deburring, wood processing, rubber roughening, intermediate varnish
Horsehair	---	Application, greasing, washing, dedusting, polishing, cleaning
Fibre	---	Application, greasing, washing, dedusting, grinding, polishing

BRUSH DIAMETER

The diameter and length of the brush facing selected for the particular application are the deciding factors in the ultimate surface quality of the workpiece to be brushed.

A soft or flexible brush design with a combination of a small brush body diameter and a high facing length is ideal for processing curved or profiled workpieces or for gentle, careful surface processing.

Brushes can be made more aggressive by choosing a larger brush body diameter and facing material with a short length. Aggressive brushing is used for deburring or removing heavy soiling, for example.

FACING DENSITY

The facing density depends on the number of wire tips per surface unit.

High facing densities

A high facing density is the basis for optimum brush cutting performance and service life, as well as optimum results for tasks like deburring.

Lower facing densities

The flexibility of the brush is increased, enabling easy processing of workpieces with highly profiled surfaces.

CONTACT PRESSURE

The contact pressure of a brush is largely defined by the immersion depth of the workpiece being processed in the brush.

Picard tip:

The recommended depth for immersion of a workpiece in the respective brush can be easily worked out using the following rule of thumb:

Immersion depth (in mm) = 3 x wire thickness (in mm)

For example, the recommended immersion depth for a wire thickness of 0,40 mm is exactly 1,20 mm.

STRUCTURE OF TECHNICAL BRUSHES

1 *Centring covers*

The centring covers attached to the right and left of the brush are designed to centre the brush on the shaft. Flanges should be used to clamp the brush axially; their external diameter should be the same as the external diameter of the centring cover.

2 *Mounting pipe*

The mounting pipe is a high-quality precision steel pipe designed to clamp the single brush rings or the spiral winding. The size of the pipe diameter has a significant influence on the quantity of material used, i.e. the number of wire tips available for use on the finished brush. The indicated maximum hole on our brushes corresponds to the mounting pipe diameter.

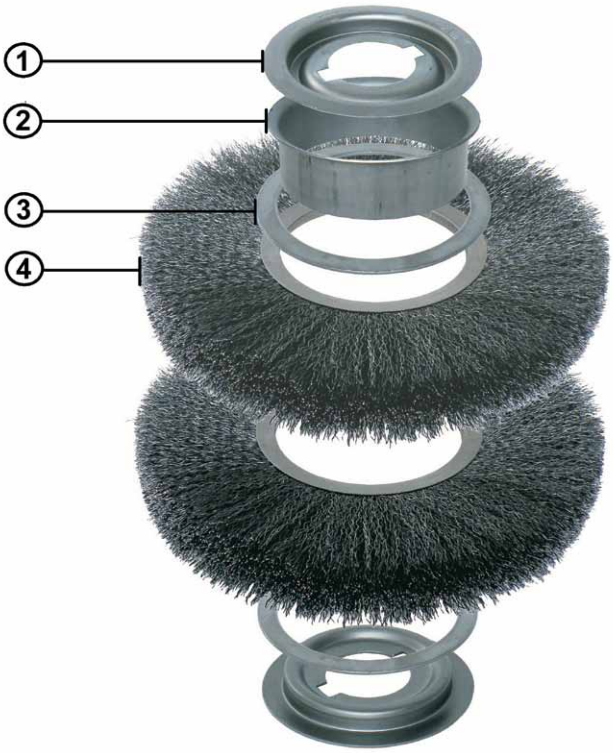
3 *Cover flange / body*

The cover flanges are primarily designed to stabilise the facing material at the sides. The free facing length is influenced by different diameters. A bigger flange diameter than usual stabilises the working area but reduces the useful length.

4 *Single brush rings / spiral winding*

The single brush rings are pressed onto the mounting pipe. The number of mounted rings is referred to as "rows". To achieve the required brush width, one or more rows must be fitted and the length of the mounting pipe adapted accordingly. The number of fitted rows determines the working width and the installation width. As an alternative to single brush rings, the facing can also be applied in a spiral round the mounting pipe ("spiral winding").

The working width or the facing width is the dimension measured across the facing. This dimension can vary on account of different facing materials, corrugations of the facing material and diameter of the facing material. The installation width is the dimension measured over the centring covers. This dimension will be observed to regardless of the facing on the brush.



GENERAL SAFETY INSTRUCTIONS

During the brushing process, safety clothing and safety glasses must be worn at all times to prevent injury from foreign objects, dirt, rust, burrs etc. Any persons standing in close environment of the brushing area must also wear protective clothing.

ROUND BRUSHES

ROUND BRUSHES FAPI-ROUND

Round brushes FAPI-ROUND are used in a wide range of surface finishing processes. The right facing material is selected on a customer-specific basis dependent on the respective application.

Dimensions:	Diameter:	40 to 450 mm
	Width:	10 to 100 mm
	Hole:	as per specification
Facing types:	Steel wire / VA-wire / non-ferrous metals / nylon / horsehair / fibre / brass-plated steel wire	
Applications:	Removing rust, paint, dirt and dust	
	Deburring, roughening, stripping or polishing	
	wood processing (especially texturing)	

ROUND BRUSHES FAPI-ROUND

Round brushes FAPI-ROUND are primarily used for deburring in stationary machines and processing centres. The flexible grinding bristles adapt to the shape of the workpiece. Being very gentle, the round brushes FAPI-ROUND are the perfect deburring tool for many applications.

Dimensions:	Diameter:	40 to 450 mm
	Width:	8 to 100 mm
	Hole:	as per specification
Facing types:	Silicon carbide / aluminium oxide	
Grinding bristles-Ø:	0,45 / 0,55 / 0,89 / 1,00 / 1,20 / 1,40	
Grain sizes:	500 / 320 / 180 / 120 / 80 / 46	
Applications:	Deburring of stainless steel, light metals, plastics	
	Edge rounding, rubber roughening, wood processing (especially texturing)	

ROUND BRUSHES FAPI-PLASTIC

With the plastic bonded round brush FAPI-PLASTIC it is possible to attain very even surface qualities on workpieces - despite their highly aggressive effect. The facing materials bonded in plastic guarantee - in conjunction with optimum cutting performance - that the working widths on the processed workpiece can be precisely adhered to.

Dimensions:	Diameter:	40 to 400 mm
	Facing height:	8 to 40 mm / as per specification
	Hole:	as per specification
Facing types:	Steel wire / VA-wire / brass / grinding bristles	
Applications:	deburring, paint stripping, derusting, descaling and cleaning	
	Processing of rubber/metal connections	

ROUND BRUSHES / RING BRUSHES

ROUND BRUSHES FAPI-SINSEC

Round brushes FAPI-SINSEC are used when narrow workpieces or profiled surfaces need to be processed precisely. The working width of the round brushes FAPI-SINSEC is relatively small, although it can be varied by lining up multiple round brushes in a row. Depending on the surface material, the robust round brushes FAPI-SINSEC can be produced from soft up to highly aggressive working.

Dimensions: Diameter: 100 to 450 mm
Width: 15 to 35 mm
Hole: as per specification

Facing types: Steel wire / Bessemer wire / brass-plated steel wire / VA-wire / non-ferrous metals / grinding bristles / nylon / horsehair

Applications: Derusting, cleaning, deburring, processing welding seams, removing scale, removing paint

RING BRUSHES FAPI-RING

Ring brushes FAPI-RING are used when narrow workpieces or profiled surfaces need to be processed precisely. The working width of the ring brushes FAPI-RING is relatively small, although it can be varied by lining up multiple ring brushes in a row. Depending on the facing material, ring brushes FAPI-RING can be produced from soft up to highly aggressive working.

Dimensions: Diameter: 30 to 100 mm
Width: 4 to 30 mm
Hole: as per specification

Facing types: Steel wire / Bessemer wire / brass-plated steel wire / VA-wire / non-ferrous metals / grinding bristles / nylon / horsehair

Applications: Derusting, cleaning, deburring, processing welding seams, removing scale, removing paint

ROUND BRUSHES FAPI-SCRATCH

Round brushes FAPI-SCRATCH are characterized by their outstanding processing performance. Due to the bend of the bristles, the tip of the material touches the surface perpendicularly, providing a rougher (like sandblasted) surface.

Dimensions: Diameter: 100 mm
Width: 20 mm
Thread: M14

Facing types: 0,6 mm steel wire

Applications: Ideal for the processing and removal of soft materials (oxide coating removal, underbody coating, paints, anti-drumming compound, etc.)

ROLLER BRUSHES

ROLLER BRUSHES FAPI-ROLL

All roller brushes FAPI-ROLL are designed for extremely long durability. We offer a wide selection of facing materials. Roller brushes FAPI-ROLL are characterized by their extremely dense facing, designed for high-performance processes in the enterprises.

roller brush FAPI-ROLL with brass-plated steel wire facing

roller brush FAPI-Roll with silicon carbide bristles

Dimensions:

Diameter:	40 to 400 mm
Width:	85 to 600 mm
Hole:	as per specification

Wider roller brushes can be made by placing several roller brushes in a row.

Facing types:

Steel wire	0,10 to 0,50 mm	1.800 to 2.000 N/mm
VA-wire	0,10 to 0,50 mm	1.600 to 1.800 N/mm
Brass-plated steel wire	0,15 to 0,40 mm	2.400 to 2.600 N/mm
Non-ferrous metals		800 to 1.000 N/mm
Grinding bristles with silicon carbide/aluminium oxide		grain 46 to 500
Fibre		
Horsehair		

Applications:

Removing scale, rust, paint, slag, rubber
Deburring pipe ends
Structuring wood
Polishing
Intermediate varnish sanding
Dedusting
Cleaning
Oil wax distribution
Wood smoothing
Wood treatment (removal of patina)

Picard Info:

Roller brushes are brushes whose working width is bigger than their external diameter.

SHAFT ROUND BRUSHES / END BRUSHES / CUP BRUSHES

SHAFT ROUND BRUSHES FAPI-ROUND

Shaft round brushes FAPI-ROUND are used for working at hard-to-reach places. Shaft round brushes FAPI-ROUND, which can be used on many machines, can be applied to a wide range of surfaces.

Dimensions: Diameter: 30 to 80 mm
Facing width: 5 to 17 mm
Shaft: 6 mm

Facing types: Steel wire / VA-wire / brass / grinding bristles / nylon / fibre

Applications: Smoothing surfaces, snagging casting seams and rubber/metal parts, light deburring, removal of corrosions and paints

END BRUSHES FAPI-TWIT

End Brushes FAPI-TWIT are used in places which are difficult to reach, in holes and cavities. A wide variety of materials such as structural steel, carbon steel, alloyed and unalloyed steels and plastics can be processed.

Dimensions: Diameter: 11 to 70 mm
Facing width: 20 to 30 mm
Body length: 45 or 100 mm
Shaft: 6 mm

Facing types: Steel wire / VA-wire / brass / grinding bristles / nylon / horsehair

Applications: Deburring, cleaning, derusting

CUP BRUSHES FAPI-CUP

Cup brushes FAPI-CUP can be used to process a wide variety of materials such as structural steel, carbon steel, alloyed and unalloyed steels and plastics. They are preferable used on larger surfaces.

Dimensions: Diameter: 50 to 200 mm
Facing width: 12 to 45 mm
Body length: 45 or 100 mm
Hole/Thread: as per specification

Facing types: Steel wire / VA-wire / brass / grinding bristles / nylon / horsehair

Applications: Deburring, cleaning, derusting, deslagging

KNOTTED ROUND BRUSHES

KNOTTED ROUND BRUSHES FAPI-ROUND

Knotted round brushes FAPI-ROUND are used in angle grinders and in stationary systems. Knotted round brushes FAPI-ROUND are used mainly for pre- and post-treatment of welding seams (fillet and butt joints) and they are also used as a tool for deburring.

Dimensions:	Diameter:	100 to 400 mm
	Width:	20 to 60 mm
	Hole:	10 to 120 mm
Facing types:	Steel wire / VA-wire	
Wire diameter:	0,30 to 1,00 mm	
Applications:	Pre- and post-treatment of welding seams (fillet and butt joint)	
	Removing scale, rust, paint, slag	
	Roughening rubber	
	Deburring	

KNOTTED ROUND BRUSHES FAPI-SINSEC

Dimensions:	Diameter:	110 to 380 mm
	Width:	6 to 16 mm
	Hole:	10 to 120 mm
Facing types:	Steel wire / VA-wire	
Wire diameter:	0,30 to 1,00 mm	
Applications:	Pre- and post-treatment of welding seams(fillet and butt joint)	
	Removing scale, rust, paint, slag, rubber	
	Deburring	

KNOTTED ROUND BRUSHES FAPI-RING

Dimensions:	Diameter:	100 to 380 mm
	Width:	6 to 15 mm
	Hole:	42 to 200 mm
Facing types:	Steel wire / VA-wire	
Wire diameter:	0,30 to 1,00 mm	
Applications:	Pre- and post-treatment of welding seams (fillet and butt joint)	
	Removing scale, rust, paint, slag, rubber	
	Deburring	

FIBRE CARDBOARD CORE BRUSHES / ROUND BRUSHES / BRUSH GRINDING SYSTEM

FIBRE CARDBOARD CORE BRUSHES FAPI-FIBRE

Fibre cardboard core brushes FAPI-FIBRE are versatile brushes that can be used in a wide range of industrial fields (metal, wood, etc.). With their individually adjustable diameter, width and facing length, they can be adapted to many different processing jobs. The fibre cardboard core brushes FAPI-FIBRE generally produce a slightly rougher finish than the sisal wheels FAPI-SLAB.

Model:	Cardboard core	
Structure:	Fibre wrapped round a cardboard core	
Dimensions:	Diameter:	60 to 960 mm
	Width:	5 to 100 mm
	Hole:	10 to 130 mm
Facing type:	Fibre	
Applications:	For polishing, waxing, oiling and dedusting of flat and lightly or heavily shaped workpieces/materials on automated polishers and/or when polishing by hand at a pedestal polisher.	

ROUND BRUSHES FAPI-ROUND FIBRE

The round brush FAPI-ROUND FIBRE is specifically designed for polishing jobs. The fibre material is a heat-resistant, hard and aggressive natural fibre. Adhesion of the polishing medium to the rough fibre structure is guaranteed throughout the entire processing period, which contributes to the optimum polishing results.

Dimensions:	Diameter:	40 to 400 mm
	Width:	10 to 120 mm
	Hole:	as per specification
Facing type:	Fibre	
Applications:	For polishing, waxing, oiling and dedusting of flat and lightly or heavily shaped workpieces/materials.	

BRUSH GRINDING SYSTEM FAPI-CLEVER-FLEX

The brush grinding system FAPI-CLEVER-FLEX is used in the metal working and wood processing industry. Flexible grinding brushes made of abrasive cloth and, usually, fibre facing, are inserted into plastic or aluminium cores with dovetail grooves.
The main task of the fibre facing behind the abrasive cloth is to generate relatively high grinding pressure on the workpiece even at slow speeds. To achieve the required surface finish, the brush grinding system FAPI-CLEVER-FLEX offers versatile facing options such as a pure fibre facing.

Dimensions:	as per specification
Facing types:	Abrasive cloth with supporting fibre facing
	Pure fibre facing
Applications:	Metal working, wood processing

MACHINES

GENERAL

We offer you a wide assortment of manual-operated and stationary machines. Upon request, we have also second-hand machines available as a cost-efficient alternative.

For all grinding machines we offer a wide range of accessories. This way the rapid conversion to other uses is achieved.

Of course, our machines abide by the legal regulations, and we consider this as top priority just as the durable, targeted and high manufacturing quality of our products.

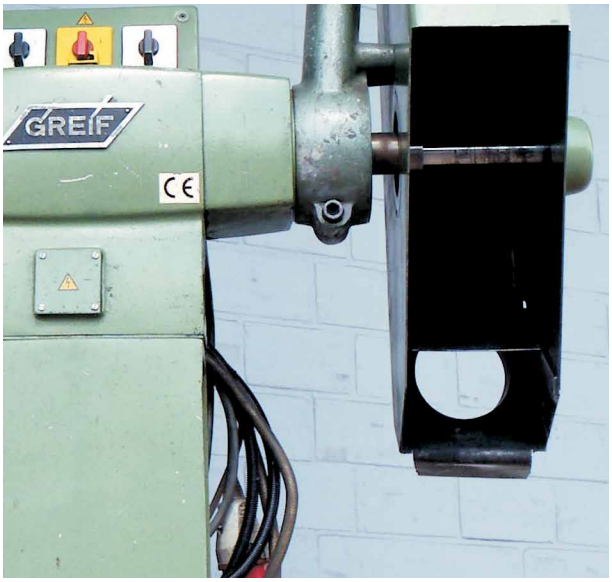
HAND-OPERATED MACHINES

At our company you will find a great variety of hand-operated machines for the most diverse application. Jointly with our Picard tools, we would also like to offer you our different hand machines in a compact grinding, polishing, deburring and brushing tool-set.

STATIONARY MACHINES

We offer belt grinding and deburring machines that meet the very highest quality and performance standards. Our extensive product portfolio ranges from small pedestal polishers to large, mainly robot-controlled grinding centres.

We will be happy to advise you on the best machine for your requirements. Alternatively, we can develop a custom tailored solution to meet your specific machining requirements.



SECOND-HAND MACHINES / DEMONSTRATION MODELS

Apart from that we sell second-hand / demo machines. This way we can provide you with a cost-efficient second-hand machine as an alternative for a new investment.

Check our website for our latest offers:

www.picard-kg.com/machines

DEBURRING CASE KIT / ANGLE GRINDERS

DEBURRING CASE KIT FAPI-FIX

With the deburring case kit FAPI-FIX, the deburring / edge rounding of metal sheet parts becomes very simple. The great variety of tools leads to a rapid and high-quality processing performance.

The advantages at a glance:

- slight but very strong edge rounding
- Constant uniform edge rounding of outer edges cuttings and holes
- Little effort required from the user
- Multiple tools

Content:

Next to the angle grinder FAPI-UPC-2R, a round brush FAPI-SCRATCH as well as a sharpening stone FAPI-SHARP, you can select among 3 models with various grinding and deburring tools:

model 1:	5 deburring discs FAPI-M14
model 2:	4 deburring discs FAPI-M14
	1 velcro supporter FAPI-M14
	10 grinding discs FAPI-KLETT
model 3:	3 deburring discs FAPI-M14
	1 velcro supporter FAPI-M14
	6 abrasive fleece discs FAPI-KLETT

model 1

model 2

model 3

ANGLE GRINDER FAPI-UPC 2-R

With its highly effective motor, the angle grinder FAPI-UPC-2R is extremely resilient. Its compact design makes it light, easy to handle and robust at the same time. The initial current limitation protects the device against overloading the main network. The angle grinder FAPI-UPC-2R also has a very flat cross head and jam protection

Technical Data:

work spindle:	M14
Idling speed:	1.000 to 2.000 1/min
Power input:	500 Watt
Weight:	1,5 kg

ANGLE GRINDER FAPI-UPK 5-R

The angle grinder FAPI-UPK 5-R offers a high performance with a low machine weight and is mostly used in the grinding, separating and polishing process. The exchangeable work spindle can be refitted effortlessly to a 19 x 100 mm socket.

Technical Data:

work spindle:	M14
Idling speed:	1.800 to 4.000 1/min
Power input:	1.530 Watt
Weight:	3,0 kg

LONGITUDINAL GRINDING SYSTEM / FILLET WELD GRINDERS / TUBE BELT GRINDERS

LONGITUDINAL GRINDING SYSTEM POLY-PTX® 800

The longitudinal grinding system POLY-PTX® 800 - the all-rounder with the intelligent grinding system - can grind from ultra-rough to ultra-smooth, produces satin and mirror finishes, and improves surfaces of stainless and other steel, non-ferrous metals like brass, copper and aluminium, and even wood.

Technical data:

Max. Tool diameter:	115 mm
Tool width:	up to 150 mm
Power input:	1.750 Watt
Tool mount:	quick release adapter
Idling speed:	1.000 to 3.800 1/min
Weight:	3,9 kg

Advantages:

- New rubberised grip for fatigue-free, comfortable use of the machine even under full load
- Infinitely variable speed control by means of a practical thumbwheel

FILLET WELD GRINDER FAPI-FINIT-EASY

The fillet weld grinder FAPI-FINIT-EASY gives you the mobility you need for professional surface finishing in hard-to-reach places and angles. Working internal angles and removing welds is child's play with the innovative extension arm on the fillet weld grinder FAPI-FINIT-EASY. With its powerful drive and compact design, the fillet weld grinder FAPI-FINIT-EASY can be used for both, light finishes and heavy-duty industrial jobs.

Technical data:

Idling speed:	1.300 to 4.000 1/min
Power input:	1.200 Watt
Weight:	3,5 kg
Applications:	Processing of fillet welds in various materials (stainless steel, aluminium, etc.)

TUBE BELT GRINDER FAPI-FINITUBE

The tube belt grinder FAPI-FINITUBE is suitable for all tubes, cylinders or pipe constructions made of steel, stainless steel, aluminium, plastic or wood. Large and small diameters, oval shapes, open and closed, straight or curved constructions can be processed with this machine.

Technical data:

Idling speed:	1.300 to 4.000 1/min
Power input:	1.200 Watt
Wrap angle:	270 angular degree
Weight:	4,8 kg
Applications:	Finishing of stainless steel railings, balustrades, design furniture, industrial tubes etc.

PNEUMATIC HAND SANDER UNITS / FLEXIBLE SHAFT

PNEUMATIC HAND SANDER UNIT FAPI-F3

The pneumatic hand sander unit FAPI-F3 can be used with a wide range of Picard tools such as deburring and profile sanding wheels, sisalcord leatherbrushes or fibre brushes. The very light weight machine allows work to be done without fatiguing.

Technical data:

Max. Speed:	1.700 1/min
Max. Air pressure:	6,0 bar
Air consumption:	5,0 l/Sec.
Output:	170 Watt
Hose length 1/4":	3,0 m
Spindle length:	50 mm
Max. Tool diameter:	200 mm
Max. Tool width:	50 mm
Net weight:	0,7 kg

PNEUMATIC HAND SANDER UNIT FAPI-F6

The pneumatic hand sander unit FAPI-F6 can be used with a wide range of Picard tools such as deburring and profile sanding wheels, sisalcord leatherbrushes or fibre brushes. The light weight and size of this powerful machine allow work to be done without fatiguing.

Technical data:

Max. Speed:	900 1/min
Max. Air pressure:	6,0 bar
Air consumption:	4,8 l/Sec.
Output:	190 Watt
Hose length 1/4":	3,0 m
Spindle length:	85 mm
Max. Tool diameter:	300 mm
Max. Tool width:	75 mm
Net weight:	1,1 kg

GEAR MACHINE WITH FLEXIBLE SHAFT FAPI-ROTOFERA

By separating the drive and tool, the gear machine FAPI-ROTOFERA enables effortless operation also in continuous duty. The light and easily managed flexible shaft can be operated smoothly, particularly at places with difficult access. The machine is equipped with a mounted On-Off switch and gear-switching is hand-operated during stationary. The motor and gear unit are fully enclosed with ventilated housing and the very robust alu-housing is ideally suited for industrial use.

Technical Data:

Motor:	three-phase motor
Protection class:	IP 44
Output:	1.000 Watt
Voltage:	400 V, 50 Hz
Speed range:	850, 1.600, 2.100, 3.200 5.700, 8.000 and 12.000 1/min
Weight:	16,8 kg
other:	3 m cable, with carrying handle, swivel mounting

TUBE GRINDING MACHINES / DEBURRING MACHINES

TUBE GRINDING MACHINE FAPI-TP80-S / FAPI-TP100-S

The tube grinding machine is suitable for grinding tubes with circular or elliptical cross sections. What makes this machine special is that it can even grind bent pipes. The easy handling, the speed and the quality of the results make the tube grinding machine a must in all industries working with tubes.

Type	FAPI-TP80-S	FAPI-TP100-S
Largest grinding diameter	80 mm	100 mm
Belt dimensions	30 x 740 mm	30 x 740 mm
Wet grinding set-up	present	present
Voltage	400 V, 50 Hz	400 V, 50 Hz
Motor output	4,0 kW	4,0 kW
Speed	1.450 1/min	1.450 1/min
Weight	160 kg	160 kg

DEBURRING MACHINES FAPI-MANUAL GRINDER

The deburring machine FAPI-MANUAL GRINDER is a cost-efficient variant to the conventional grinding and deburring machines. The head is rotated lightly over the workpiece and has a weight-mounted arm with at one side a deburring disc FAPI-150 and on the other side a velcro supporter FAPI-150 for the adjustment of the velcro-backed grinding discs. Additionally, the head has a rotation of 180° and allows the rapid exchange of individual tools.

Type	FAPI-MANUAL GRINDER
Working width	1.300 x 800 mm
Voltage	230 V
Motor output	1,5 kW
Dimensions	1.339 x 888 x 980/1.498 mm
Weight	230 kg

BELT GRINDING AND POLISHING MACHINES (SINGLE-SIDED MODEL)

BELT GRINDING AND POLISHING MACHINE FAPI-72713

The belt grinding and polishing machine FAPI-72713 offers enormous advantages for manufacturers of turbine and compressor blades. With the available motor outputs of 3,0 to 7,5 kW, it is optimally designed for heavy applications in continuous operation. A special tool-free-quick-change device for the working contact wheel allows efficient grinding with different contact wheel geometries, which can be optimally adapted to the respective working task.

Typ	FAPI-72713
Belt dimensions	50 x 3.500 mm
Shaft diameter	Ø 35 mm
Motor speed	1.500 1/min
Spindle speeds (3 speeds selectable)	700 bis 2.800 1/min
Max. Contact wheel diameter	450 mm
Voltage	400 V, 50 Hz
Motor output	3,0 kW bis 7,5 kW

BELT GRINDING AND POLISHING MACHINE FAPI-72711

The belt grinding and polishing machine FAPI-72711 is a machine with single-sided format. It is a sturdy machine that can be used for belt grinding or polishing. With a motor output of 3,0 to 7,5 kW the 72711 series is suitable for industrial applications with high removal rate.

Type	FAPI-72711
Belt dimensions	100 x 3.500 mm 100 x 4.000 mm
Shaft diameter	Ø 35 mm
Motor speed	1.500 1/min
Spindle speeds (3 speeds selectable)	2 x 3-stage or infinitely variable (700 to 2.800 1/min)
Spindle height	630 mm (low pedestal) 900 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output	3,0 kW / 4,0 kW / 5,5 kW / 7,5 kW

BELT GRINDING AND POLISHING MACHINES (SINGLE-/DOUBLE-SIDED MODEL)

BELT GRINDING AND POLISHING MACHINE FAPI-SMB

The single-sided belt grinding and polishing machine FAPI-SMB is the most popular manually operated contact grinding machine with V-belt on the market. The universal belt grinding and polishing machine with motor outputs from 1,5 to 5,5 kW can be produced by us for belt grinding or polishing as required. Due to its stable, low-vibration construction it guarantees a long service life and precise work without chatter marks.

Type	FAPI-SMB
Belt dimensions	100 x 3.500 mm
Shaft diameter	Conical shaft Ø 40 / Ø 42 mm Cylindrical shaft Ø 45 mm
Spindle speeds	1.000 / 1.500 / 2.000 1/min
Spindle height	475 mm
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output (pole-changing)	1,5 kW / 3,0 kW / 4,0 kW / 5,5 kW

BELT GRINDING AND POLISHING MACHINE FAPI-DS 7722

The belt grinding and polishing machine FAPI-DS 7722 is a versatile usable machine for light and medium duty work. Due to their double-sided version with optionally combination belt grinding and polishing, only belt grinding or only polishing it is the ideal machine for flexible applications possibilities. Due to the high speed belt tensioning, the machine can be quickly adapted to other sanding belts. It is optionally available as a work bench or stand version.

Type	FAPI-DS 7722
Belt dimensions	30 x 2.000 mm 50 x 2.000 mm
Belt speed	30 m/s
Spindle speeds	2.840 1/min
Max. Contact wheel diameter	200 mm
Max. Polishing wheel diameter	250 mm
Voltage	400 V, 50 Hz
Motor output	2,2 kW

BELT GRINDING AND POLISHING MACHINES (DOUBLE-SIDED MODEL)

BELT GRINDING AND POLISHING MACHINE FAPI-72730

The belt grinding and polishing machine FAPI-72730 is a versatile machine with motor outputs from 2.2 kW to 5.5 kW and is an ideal, powerful entry-level model. The double-sided design of the FAPI-72730 series, available with a combination of belt grinding and polishing, only belt grinding or only polishing, makes them universal machines for industrial use. The machine is driven with a built-in motor on the continuous spindle shaft.

Type	FAPI-72730
Belt dimensions	100 x 3.500 mm 100 x 4.000 mm
Shaft diameter	Ø 35 mm
Motor speed	1.500 1/min
Spindle speeds	1.500 / 3.000 1/min
Spindle height	630 mm (low pedestal) 900 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output	2,2 kW / 3,0 kW / 4,0 kW / 5,5 kW

BELT GRINDING AND POLISHING MACHINE FAPI-72780

The belt grinding and polishing machine FAPI-72780 is a universally usable machine for continuous heavy duty applications with motor engine power from 3,0 to 7,5 kW each motor and therefore ideally suited for individual applications with high stock removal. The FAPI-72780 series is a versatile usable machine due to their double-sided version with optionally combination belt grinding and polishing, only belt grinding or only polishing where each side has its own drive motor.

Type	FAPI-72780
Belt dimensions	100 x 3.500 mm 100 x 4.000 mm
Shaft diameter	Ø 35 mm
Motor speeds	1.500 1/min
Spindle speed (3 speeds selectable)	2 x 3-stage or infinetly variable (700 to 2.800 1/min)
Spindle height	630 mm (low pedestal) 900 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output	3,0 kW / 4,0 kW / 5,5 kW / 7,5 kW

BELT GRINDING AND POLISHING MACHINES (DOUBLE-SIDED MODEL)

BELT GRINDING AND POLISHING MACHINE FAPI-SMG56

The belt grinding and polishing machines of the SMG 56 series have different motor outputs, making them suitable for many different uses. The double-sided design of the SMG 56 series, available with a combination of belt grinding and polishing, only belt grinding or only polishing, makes them universal machines for industrial use.
Highlights are the two built-in motors that can be switched off separately and drive the machine's divided spindle shafts.

Type	FAPI-SMG 56
Belt dimensions	100 x 3.500 mm
Shaft diameter	Ø 35 mm
Spindle speeds (3 speeds selectable)	2 x 3-stage (1.200 to 3.500 1/min)
Spindle height	600 mm (low pedestal) 1.000 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diamater	500 mm
Voltage	400 V, 50 Hz
Motor output	2,2 kW / 3,0 kW / 4,0 kW / 5,5 kW / 7,5 kW

BELT GRINDING AND POLISHING MACHINE FAPI-SMZ 57

The belt grinding and polishing machines FAPI-SMZ 57 have different motor outputs, making them suitable for many different uses. The double-sided design of the FAPI-SMZ 57 series, available with a combination of belt grinding and polishing, only belt grinding or only polishing, makes them universal machines for industrial use.
Highlights are the machine's divided spindle shafts, allowing three different speeds to be preset on each shaft via a V-belt drive. The FAPI-SMZ 57 has a built-in motor.

Type	FAPI-SMZ 57
Belt dimensions	100 x 3.500 mm
Shaft diameter	Ø 35 mm
Spindle speeds (3 speeds selectable)	2 x 3-stage (1.200 to 3.500 1/min)
Spindle height	600 mm (low pedestal) 1.000 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output	4,0 kW / 5,5 kW / 7,5 kW

BELT GRINDING AND POLISHING MACHINES (DOUBLE-SIDED MODEL)

BELT GRINDING AND POLISHING MACHINE FAPI-PM 75

The belt grinding and polishing machines FAPI-PM 75 have low motor outputs, making them economical yet high-quality entry-level models. The double-sided design of the FAPI-PM 75 series, available with a combination of belt grinding and polishing, only belt grinding or only polishing, makes them universal machines for industrial use. Three different speeds can be preset via a V-belt drive on the continuous shaft.

Type	FAPI-PM 75
Belt dimensions	100 x 3.500 mm
Shaft diameter	Ø 35 mm
Spindle speeds	1 x 3-stage (1.200 to 3.500 1/min)
Spindle height	600 mm (low pedestal) 1.000 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Ppolishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output	2,2 kW

BELT GRINDING AND POLISHING MACHINE FAPI-SMG 58

The belt grinding and polishing machines FAPI-SMG 58 have different motor outputs, making them suitable for many different uses. The double-sided design of the FAPI-SMG 58 series, available with a combination of belt grinding and polishing, only belt grinding or only polishing, makes them an universal machine for industrial use. Highlights are the two built-on motors that can be switched off separately and drive the machine's divided spindle shafts.

Type	FAPI-SMG 58
Belt dimensions	100 x 3.500 mm
Shaft diameter	Ø 35 mm
Spindle speeds (3 speeds selectable)	2 x 3-stage or infinetly variable (1.200 to 3.500 1/min)
Spindle height	600 mm (low pedestal) 1.000 mm (high pedestal)
Max. Contact wheel diameter	450 mm
Max. Polishing wheel diameter	500 mm
Voltage	400 V, 50 Hz
Motor output	2,2 kW / 3,0 kW / 4,0 kW

SURFACE BELT GRINDING MACHINES

SURFACE BELT GRINDING MACHINE FAPI-BS75 / FAPI-BS200 / FAPI-BS300

These surface belt grinding machines are particularly versatile, easy to use, sturdily built and functional in design. They can be used for any dry grinding job. Machines with belt widths of 100 mm, 200 mm or 300 mm are available.

Type	FAPI-BS75	FAPI-BS200	FAPI-BS300
Belt dimensions	100 x 950 mm	200 x 1.500 mm	300 x 2.000 mm
Max. Grinding surface	100 x 225 mm	200 x 410 mm	300 x 530 mm
Belt speed	8 m/s; 16 m/s	8 m/s; 16 m/s	8 m/s; 16 m/s
Voltage	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz
Motor output (pole-changing)	0,55 kW / 0,7 kW	1,8 kW / 2,2 kW	3,0 kW

SURFACE BELT GRINDING MACHINE FAPI-BS75-A / FAPI-BS200-A / FAPI-BS300-A (WITH BUILT-IN EXTRACTION)

The surface belt grinding machines with built-in dust extraction system offer extremely effective extraction of the grinding dust. The extraction system is built into the machine's stand.

Type	FAPI-BS75-A	FAPI-BS200-A
Belt dimensions	100 x 950 mm	200 x 1.500 mm
Max. Grinding surface	100 x 225 mm	200 x 410 mm
Belt speed	8 m/s; 16 m/s	8 m/s; 16 m/s
Voltage	400 V, 50 Hz	400 V, 50 Hz
Motor output (pole-changing)	0,55 kW / 0,7 kW	1,8 kW / 2,2 kW

SURFACE BELT GRINDING MACHINES

SURFACE BELT GRINDING MACHINE FAPI-BS75-W / FAPI-BS200-W / FAPI-BS300-W

Special attention was placed on compact and high-quality even so economical design in the development of our surface belt grinding machines for wet grinding. For example, this compact surface belt grinding machine can grind aluminium completely safely.

Type	FAPI-BS75-W	FAPI-BS200-W	FAPI-BS300-W
Belt dimensions	100 x 950 mm	200 x 1.500 mm	300 x 2.000 mm
Max. Grinding surface	100 x 225 mm	200 x 410 mm	300 x 530 mm
Belt speed	16 m/s	10 m/s; 20 m/s	15 m/s
Voltage	400 V, 50 Hz	400 V, 50 Hz	400 V, 50 Hz
Motor output (pole-changing)	1,1 kW	2,0 kW / 2,4 kW	4,0 kW

SURFACE BELT GRINDING MACHINE FAPI-B200/150S

The surface belt grinding machine FAPI-B200/150S is a robust and solid machine for heavy and maximum duty, in single and multi- shift operations. Even the basic model is suitable for a variety of grinding applications on a great variety of materials.

Type	FAPI-B200/150S
Belt dimensions	200 x 1.800 mm 150 x 1.800 mm
Max. Grinding surface	200 x 600 mm
Belt speed	5 m/s, 10 m/s, 20m/s, 30 m/s
Voltage	400 V, 50 Hz
Motor output (pole-changing)	3,0 kW
Weight	165 kg

WORKSHOP GRINDING MACHINES

WORKSHOP GRINDING MACHINE FAPI-DS / FAPI-WS (WITHOUT EXTRACTION)

We offer a wide range of workshop grinders to fulfil our customers' specific wishes and requirements. The grinding machines are developed with practical professional orientation and designed in accordance with the latest scientific findings. Moreover, in addition to developing new grinding machines, we constantly enhance our existing ones to ensure that they can be put to rational and economical use.

Type	Output [in kW]	Dimensions wheel [in mm]	Spindle speed [in 1/min]	Weight [in kg]	
				bench	pedestal
DS 04 / 150	0,25	150 x 25 x 51	2.900	14	42
WS 04 / 150					
DS 04 / 175	0,25	175 x 25 x 51	2.900	15	43
WS 04 / 175					
DS 07 / 200	0,5	200 x 25 x 51	2.900	30	57
WS 07 / 200	0,37				
DS 12 / 200	0,9	200 x 32 x 51	2.900	40	77
WS 12 / 200	0,55				
DS 12 / 250	0,73	250 x 32 x 51	1.450	47	84
DS 15 / 300	1,1	300 x 40 x 76	1.450	80	118
DS 25 / 300	1,8	300 x 40 x 76	1.450	90	148
DS 30 / 350	2,2	350 x 40 x 76	1.450	107	165
DS 30 / 400	2,2	400 x 40 x 127	1.450	134	192
DS 40 / 400	3,0	400 x 50 x 127	1.450	190	225
DS 45 /500	3,3	500 x 60 x 127	950	240	305

DS = three-phase current
WS = alternating current

WORKSHOP GRINDING MACHINE FAPI-DS / FAPI-WS (WITH BUILT-IN EXTRACTION)

The workshop grinders with built-in extraction effectively remove dust using a patented system. The extraction system is built into the machine's stand. The dust is filtered by a water filter and downstream plastic pre- and post-filter (also built into the stand).

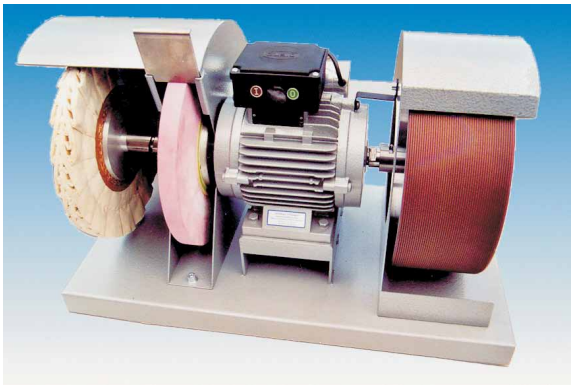
Type	Output [in kW]	Dimensions wheel [in mm]	Spindle speed [in 1/min]	Weight [in mm]
DS 04 / 175 A	0,25	175 x 25 x 51	2.900	83
DS 07 / 200 A	0,5	200 x 25 x 51	2.900	95
DS 12 / 200 A	0,9	200 x 32 x 51	2.900	108
DS 12 / 250 A	0,73	250 x 32 x 51	1.450	115
DS 15 / 300 A	1,1	300 x 40 x 76	1.450	160
DS 25 / 300 A	1,8	300 x 40 x 76	1.450	195
DS 30 / 350 A	2,2	350 x 40 x 76	1.450	210
DS 30 / 400 A	2,2	400 x 40 x 127	1.450	240
DS 40 / 400 A	3,0	400 x 50 x 127	1.450	305

DS = three-phase current

SERRATION GRINDING MACHINES

SERRATION GRINDING MACHINE FAPI-WS 300 EXPERT

The FAPI-WS 300 EXPERT is a very high performance, sturdy serration grinding machine with a continuous protective hood on the left and right side. In addition to grinding and sharpening knives and scissors using serrated grinding wheels, the machine can also be used for grinding and polishing work using tools.

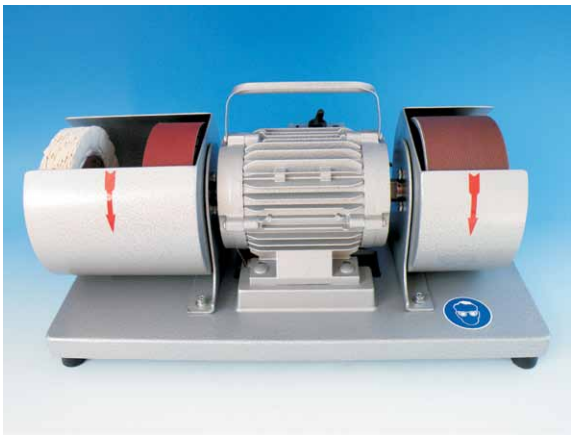


Technical data:

Dimensions:	650 x 350 x 400	mm
Mains supply:	240 or 400	V
Output:	0,55	kW
Speed:	1.400	1/min
Max. Tool diameter:	300	mm
Max. Width serration grinding wheel:	120	mm

SERRATION GRINDING MACHINE FAPI-WS 150 FLEX

The serration grinding machine FAPI-WS 150 FLEX is used to grind and sharpen serrated knives and scissors. However it can also be used for other grinding and polishing work.It is provided with a bayonet quick release system both on the right and the left side and a flexible 360° rotable protective hood.

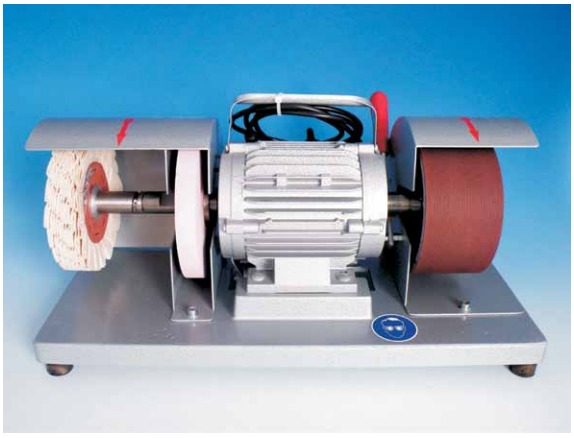


Technical data:

Dimensions:	520 x 220 x 230	mm
Mains supply:	240	V
Output:	0,2	kW
Speed:	2.800	1/min
Max. Tool diameter:	150	mm
Max. Width serration grinding wheel:	80	mm

SERRATION GRINDING MACHINE FAPI-WS 150 PERFECT

The FAPI-WS 150 PERFECT allows for the sharpening and stripping of knives and scissors. With the integrated left- and right-side bayonet rapid-lock, the tools are rapidly exchanged. This machine is also suitable for the application in other grinding and polishing works.



Technical data:

Dimensions:	520 x 220 x 230	mm
Mains supply:	240	V
Output:	0,2	kW
Speed:	2.800	1/min
Max. Tool diameter:	150	mm
Max. Width serration grinding wheel:	80	mm

EXTRACTION SYSTEMS

ESTA - AUTHORISED DEALER

As a long-standing dealer for the company ESTA Apparatebau GmbH & Co. KG we offer extraction systems in our product range.

We specialise in extraction technology for grinding, polishing, deburring and brushing.

Our customers see us as a competent point of contact for all matters of extraction systems.

STATIONARY EXTRACTION SYSTEMS

Stationary extraction systems are a permanent fixture alongside the processing machine or in production halls. With the appropriate filter material, almost all kinds of chips and dust can be separated off. The dust is either collected directly at the unit's port or via suitable extraction elements (e.g. hoods or extraction arms).

MOBILE EXTRACTION SYSTEMS

Mobile dedusters extract almost all kinds of dust and chips at dust-generating machinery. The dust is usually collected directly in the processing machine and extracted to the filter unit via an existing extraction port installed at a suitable point. If there is no port available, the dust is collected in appropriate collection components such as hoods or extraction arms, guaranteeing a clean working environment.

INDUSTRIAL VACUUM CLEANERS

All industrial vacuum cleaners are characterized by superior vacuum performance and high quality workmanship. The compact design of these industrial strength vacuum cleaners and the high manoeuvrability with casters gives them high mobility. These industrial vacuum cleaners are flexible in use, they have a comprehensive range of accessories and their processing quality is TÜV-approved, so they are perfect for sporadic or continuous operation in an industrial setting.

STATIONARY EXTRACTION SYSTEMS

STATIONARY EXTRACTION SYSTEM FAPI-DUSTMAC-S

The stationary FAPI-DUSTMAC S dust extractors (with hose filter) are used as central extraction systems or for single-station extraction with high air volume requirements. They are ideal for extracting dusts which tend to stick due to their temperature, moisture and hygroscopicity (e.g, cement dust, chalk, soot and fibreglass). Additionally, higher filter surface loads can be achieved compared to cartridge filters.

The modular design means the system can be expanded as and when required.

Typ		S-5	S-10	S-17	S-25	S-33
Max. Air flow	m^3/h	ca. 2.600	ca. 3.500	ca. 4.500	ca. 5.400	ca. 9.700
Intake/outlet-Ø	mm	160/280	200/300	224/355	280/400	355/400
Max. Negative pressure	Pa	2.000	2.600	3.200	3.200	3.800
Voltage	V	400	400	400	400	400
Motor	kW	2,2	3,0	4,0	5,5	7,5
Filter surface	m^2	5	10,5	17	25	33
Filter elements	piece	13	20	32	48	48
Dust collection container	l	50	50	50	50	50
Sound level	dB(A)	67	69	74	76	82
Dimensions (L/W/H)	mm	1.400 x 1.055 x 3.456	1.400 x 1.310 x 3.470	1.820 x 1.310 x 3.875	1.820 x 1.750 x 3.990	1.880 x 1.750 x 4.400

STATIONARY WET SEPARATORS FAPI-NA-K-SERIES

The stationary wet separators in the FAPI-NA-K series have been designed for the extraction of moist and sticky substances as well as for applications that produce a lot of flying sparks. The devices in the NA-K series are also available in ATEX format and can be used for both single and multi-station extraction.

Feature:

Moreover, the stainless steel wet separators FAPI-NA-K VA and FAPI-NA-K B have prototype test certification (BGR 109 [trade association rule 109]) which eliminates the need for additional on-site trade association testing. Furthermore they have DEKRA prototype test certification as approval for aluminium dust.

ATEX KONFORM

Typ		NA-K 1800	NA-K 3600	NA-K 6000
Max. Air flow	m^3/h	2.160	3.125	5.150
Intake/outlet-Ø	mm	180 / 280	224 / 280	280 / 300
Max. Negative pressure	Pa	4.300	3.500	3.600
Motor	kW	3,0	5,5	7,5
Water content	l	290	390	390
Water connection		G 3/4"	G 3/4"	G 3/4"
Sludge container	l	50	50	50
Weight (without water)	kg	340	510	530
Sound level	dB(A)	83	86	89
Dimensions (L/W/H)	mm	800 x 800 x 2.940	950 x 950 x 3.460	950 x 950 x 3.460

SMALL DUST COLLECTOR / MOBILE EXTRACTION SYSTEMS

SMALL DUST COLLECTOR FAPI-OM

The small dust extractors in the FAPI-OM series can be used for a wide range of applications with machines that produce dust. They are suitable for almost any type of dust and are characterised by their strong suction performance and low operating noise. They are just as suitable for occasional use as for continuous operation with moderate amounts of dust. These devices are often used in the electrical industry, surface engineering and metals processing.

Typ		OM-8	OM-10	OM-12
Max. Air flow	m^3/h	500	600	800
Intake-Ø	mm	80	100	150
Height of intake connection	mm	300	300	300
Max. Negative pressure	Pa	1.600	1.500	1.800
Voltage	V	400	400	400
Motor	kW	0,55	0,55	1,10
Overall depth	mm	670	670	670
Weight	kg	65	65	70
Sound level	dB(A)	65	66	72
Dimensions (L/W/H)	mm	550 x 550 x 1.220		

MOBILE EXTRACTION SYSTEMS FAPI-DUSTOMAT 4

The new FAPI-DUSTOMAT 4 mobile dust extractors offer significantly enhanced suction power and greater energy efficiency. Thanks to the innovative housing design this means improved extraction results and reduced power and compressed air consumption. The devices are suitable for virtually all sectors and work to effectively remove the dusts and shavings which are produced when machining metal, plastic and wood amongst other things. The permanent filter cartridges can be cleaned and offer a long service life.

Typ		4-10	4-24
Max Air flow	m^3/h	2.000	3.300
Intake-Ø	mm	160	200
Max. Negative pressure	Pa	2.600	3.600
Voltage	V	400	400
Motor	kW	2,2	4,0
Filter elements	piece	2	2
Filter surface	m^2	10	24
Dust collection container	l	90 (42*)	90 (42*)
Weight	kg	230	280
Sound level	dB(A)	68	72
Dimensions (L/W/H)	mm	1.400 x 840 x 1.440	1.600 x 840 x 1.640

* with disposal box

MOBILE WET SEPARATORS / INDUSTRIAL VACUUM CLEANERS

MOBILE WET SEPARATORS FAPI-NA-SERIE

The mobile wet separators in the FAPI-NA series are ideal for extracting sticky materials and for work processes that give off a lot of spark.
They come in three versions:
a) dust extractor for connection to processing machines
with intake connection piece diameters of up to 100 mm (NA-1.1)
b) cleaning vacuum for a 50 mm hose diameter (NA-2.2)
c) pre-separator for connection to an existing extraction system (NA-500).

All three versions are also available as ATEX models.

Typ		NA-500 Pre-Separator	NA-1.1 Dust Extractor	NA-2.2 SK Vacuum unit
Max Air flow	m^3/h	500	560	300
Intake-Ø	mm	100 / 100	100 / ---	50 / --
Max. Negative pressure	Pa	---	1.700	21.000
Voltage	kW	---	1,1	2,2
Water capacity	l	40	40	40
Collection container	l	100	100	100
Weight (without water)	kg	80	120	130
Sound level	dB(A)	---	78	68
Dimensions (L/W/H)	mm	1.260x630x1.560	1.310x530x1.560	1.260x630x1.560

INDUSTRIAL VACUUM CLEANER FAPI-EUROSOG

The powerful industrial vacuum cleaner FAPI-EUROSOG is ideally suited for gross, fine and free-flowing dust. The patented tilting device removes the dust effortlessly and the vacuum cleaner is easily moved by means of the smoothly-operated rollers. The AC-model is fit for the sporadic use in cleaning works at the workplace; on the other hand, the DC-model is designed for permanent operation.

Typ		EUROSOG W	EUROSOG-I-D
Max Air flow	m^3/h	360	360
Intake-Ø	mm	50	50
Max. Negative pressure	Pa	18.600	19.500
Voltage	V	230	400
Motor	kW	3 x 1,0	2,2
Filter surface	m^2	2 / 5	2 / 5
Dust collection container	l	80	80
Weight	kg	76	81
Sound level	dB(A)	74	77
Dimensions (L/W/H)	mm	932 X 660 X 1.140	1.030 X 670 X 1.240

ACCESSORIES

ACCESSORIES

The right accessory for grinding, deburring, polishing and brushing is essential for achieving top quality when processing workpieces. Our product range includes a wide range of accessories to support and enhance your processing work.

ACCESSORIES "MOUNTING"

We turn and mill mountings for all common tools in our in-house turning shop. We also keep standard mountings for satin finishing wheels etc. in stock. Special mountings for tools can be produced customised.

ACCESSORIES "POLISHING"

To achieve a high-quality surface on your workpieces, you need the optimal tool and the right polishing additives.
Our polishing accessories guarantee a trouble-free, high-quality processing workflow at all times.

ACCESSORIES "(BELT-)GRINDING"

Explicit for (belt) grinding processes, we offer accessories that increase tool service life and to maintain the surface quality of the workpiece at the highest possible level.

FLANGE CONNECTOR / MOUNTING ADAPTER / TRIM MOUNTING / ALU-SOCKET

FLANGE CONNECTOR FAPI-CONNECT

Flange connectors FAPI-CONNECT are used for grinding and polishing tools on a grinding and polishing machine with a conical shaft. They allow the tools being used on the grinding and polishing machine (contact wheels, polishing rings, felt wheels, flap grinding wheels, etc.) to be changed extremely fast.

Types: 39 / 41
40 / 42
41 / 43
42 / 44

Flange connectors FAPI-CONNECT are optionally deliverable with right- or left-hand thread.

MOUNTING ADAPTER FAPI-M14

With the mounting adapter FAPI-M14 you can use tools with a hole of 19 mm and keyway easily on an adjustable angle grinder.

Dimensions: 100/110 x 19 mm

TRIM-MOUNTING FAPI-M14

Our TRIM-mounting FAPI-M14 submit the use of deburring discs of the FAPI-TRIM series on an adjustable angle grinder with M14-mounting.
Due to the quick release system the deburring discs can be exchanged easily without using an extra tool.

Dimensions: 100 x 14 mm x M14

ALU-SOCKET FAPI-TIME

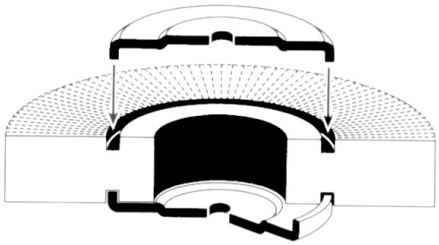
For the installing of our tools on Timesavers-machines (f.e. deburring rollers FAPI-FLEX or oxide brush rollers) you need one socket for each roller, which will be fixed with Torx-screws at the rollers.

The completely made of aluminium socket FAPI-TIME is a sturdy and long durable alternative to the caps made of plastic you receive from Timesavers together with the machine.

CLAMPING COVERS / ALUMINIUM FLANGES / MANDREL

CLAMPING COVERS FAPI-SPANN

Our clamping covers FAPI-SPANN are made of steel or aluminium. They must be used for all flap grinding wheels FAPI-RING. The correct mounting of the clamping covers is very important. Clamping covers FAPI-SPANN must sit securely on the inner edge of the flap grinding wheels retaining groove.



Diameter Clamping cover [in mm]	Diameter Flap grinding wheel [in mm]	Hole [in mm]	Expansion possible up to
55	100	10	20 mm
55	140	10	20 mm
79	165	12	40 mm
121	200	14	50 mm
121	250	14	50 mm
155	300	20	50 mm
201	350	25	80 mm
228	380	25,4	80 mm
228	410	25,4	80 mm

ALUMINIUM FLANGES FAPI-SPANN

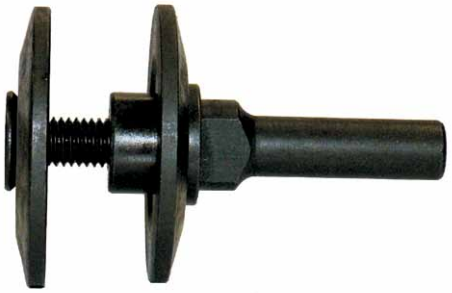
The aluminium flanges FAPI-SPANN are made of aluminium. They are used in combination with our satin finishing wheels. Here as well the correct mounting of the aluminium flanges is very important. Attaching the aluminium flanges FAPI-SPANN in the wrong way can lead to imbalance and injury.

Diameter Aluminium Flange [in mm]	Hole [in mm]
50	10
76	10
115	10
150	10
250	10

The hole diameter can be changed according to specifications.

MANDREL FAPI-SPANN

The mandrels FAPI-SPANN are reusable tool holders for mounting polishing wheels, buffing wheels, etc. Mandrels FAPI-SPANN are designed to be retracted into the tool to be mounted. For this reason, it is also possible to work on very narrow edges and angles on the face side.



Designation / Shaft-Ø / Tool hole [in mm]	Tool diameter [in mm]	Expansion width [in mm]
8 /10	100 to 150	5 to 25
6 /13	100 to 150	15
8 / 13	150 to 200	30
12 / 20	200 to 250	55
Socket 8 / 18	max. 150	25
Angle grinder M14 / 14	max. 150	40

VELCRO SUPPORTERS / VELCRO SUPPORTS / POLISHING WHEEL DRESSER

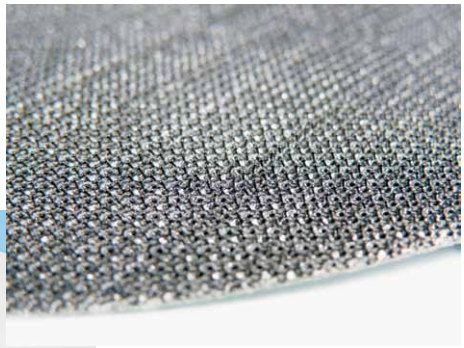
VELCRO SUPPORTER - SERIES

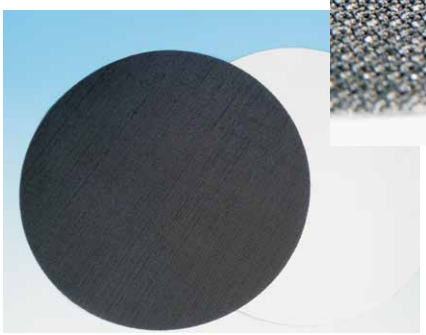
With our velcro supporters you can mount all kinds of velcro-backed grinding discs easily. Due to the different mountings and diameter they are usable for many purposes on handmachines as well as on stationary grinding and deburring machines.

Diameter:	115 mm, 150 mm, 250 mm	
Mountings:	M14-Thread	(115 mm)
	Quick release system	(115 mm)
	25 mm Hole	(150 mm)
	30 mm Hole	(250 mm)

SELF-ADHESIVE VELCRO SUPPORT FAPI-KLETT

The self-adhesive velcro support FAPI-KLETT allows abrasive materials with different grain sizes to be exchanged fast. The velcro support FAPI-KLETT is stuck onto the disc of the grinding machine, so that the abrasive material with the required grain size can simply be "Velcroed" onto it. The self-adhesive velcro supports FAPI-KLETT can be used on all standard commercial grinding machines.

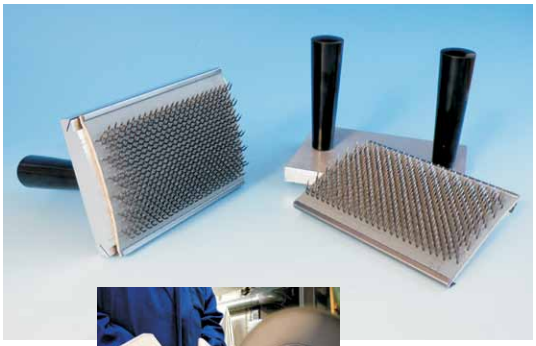




Dimensions: Ø 100 to Ø 600 mm

POLISHING WHEEL DRESSER FAPI-PLANER

New polishing tools (polishing wheels, polishing rings, etc.) can be roughened safely and easily with the polishing wheel dresser FAPI-PLANER. Thus enables the tool to collect the polishing compound or emulsion significantly faster.
Any tools already in use can also be stripped or opened with the polishing wheel dresser FAPI-PLANER if they have become encrusted after long time of nonuse.
Worn-out facings of the polishing wheel dresser FAPI-PLANER can be changed easily.



Dimension: 130 x 90 mm
Facing width: 120 mm

BRUSHING AND POLISHING COMPOUNDS / GRINDING SOAP / GRINDING GREASE

BRUSHING AND POLISHING COMPOUNDS

To give workpieces a high gloss polish, the correct brushing or polishing tool and a brushing or polishing compound tailored to the purpose must be used. As a rule, a distinction is made between solid and liquid polishing compounds. The polishing compound is applied to the polishing tool (polishing wheel, polishing ring, etc.) before or during the process.

Solid polishing compound

The heat generated by the friction from the pressure applied to the rotating polishing tool melts the solid polishing compounds so that that these have no problem adhering to the polishing tool.

Liquid polishing compound

With the liquid polishing compound this procedure is easier because of the liquid state, so that the polishing tool can be injected with the assistance of a sprayer.

<table>
<tr><th>MATERIAL</th><th>GRINDING</th><th>BRUSHING</th><th>PRE-POLISHING</th><th>MIRROR FINISHING</th><th>PURIFICATION</th></tr>
<tr><td>Aluminium</td><td>Langsol® S4</td><td>Athos 127
(black)</td><td>7012
(brown)</td><td>0462
(light blue)</td><td>---</td></tr>
<tr><td>Chrome</td><td>---</td><td>---</td><td rowspan="4">5333
(white)</td><td>0017
(green)</td><td>---</td></tr>
<tr><td>Stainless steel</td><td>---</td><td>Langsol® S4</td><td rowspan="8">0462
(light blue)</td><td rowspan="8">Langsol®
1003 A
(pink)</td></tr>
<tr><td>Iron</td><td>---</td><td>---</td></tr>
<tr><td>Steel</td><td>---</td><td>Langsol® S4
Athos 127
(black)</td></tr>
<tr><td>Brass</td><td>---</td><td rowspan="2">Athos 127
(black)</td><td>Chrysophor 190
(brown)</td></tr>
<tr><td>Copper</td><td>---</td><td>7012
(brown)</td></tr>
<tr><td>Nickel</td><td>---</td><td>---</td><td>2043JF
(light green)</td></tr>
<tr><td>Zinc die casting</td><td>---</td><td>Athos 127
(black)</td><td>7012
(brown)</td></tr>
<tr><td>Duroplast</td><td rowspan="2">Langsol® strong cut liquid</td><td>---</td><td rowspan="2">4398
(brown)</td><td rowspan="2">5796
(beige)</td><td rowspan="2">Langsol® Complete liquid</td></tr>
<tr><td>Thermoplast</td><td>---</td></tr>
</table>

GRINDING SOAP FAPI-SOAP / GRINDING GREASE FAPI-ATHOS

Grinding soap FAPI-SOAP and grinding grease FAPI-ATHOS are used during grinding to keep the abrasive belt open for longer. Our grinding soap and grinding grease have been shown to extend service life even when grinding aluminium, which as a rule quickly clogs the belt.

Dimenions: Grinding soap FAPI-SOAP: 380 x 40 x 55 mm
Grinding grease FAPI-ATHOS: 170 x 70 x 60 mm

Advantages: Increases the abrasive belt's service life
Improvement in grinding performance
Extremely low grinding costs
Cooler cutting resp.lower grinding temperature

BELT GRINDING OIL / VIENNA LIME / CLEANING STONES

BELT GRINDING OIL FAPI-OIL

The use of belt grinding oil prevents the loading-up of the abrasive belt caused by very fine grinding dust. The running abrasive belt is sprayed with oil at intervals of approx. 10 to 15 cm by putting pressure on the nozzle head. This procedure should be repeated at appropriate intervals if possible, to constantly work against the loading-up of the abrasive belt.

Advantages Increases the abrasive belt's service life
Improvement in grinding performance
Significant reduction in grinding costs
Cooler cutting resp. lower grinding temperature

Content: 400 ml – spray can
10 litre canister

VIENNA LIME FAPI-VIENNA

Vienna lime is a tried and tested and highly efficient cleaning and polishing medium that dates back to “great grandma’s days”. It is a pure, natural mineral product with no chemical additives, made of milled quartz and kaolinite.
Vienna lime is applied to a damp cloth which is used to polish workpieces or objects until the desired surface is obtained. The polished surface is then rinsed with water and dried.

Unit: 25 kg-Trading unit
Applications: Stainless steel, silver, brass, copper, metals, glass, ceramic glass, cooktops and hobs, plastics, porcelain, ceramics, painted surfaces

CLEANING STONES FAPI-STONE

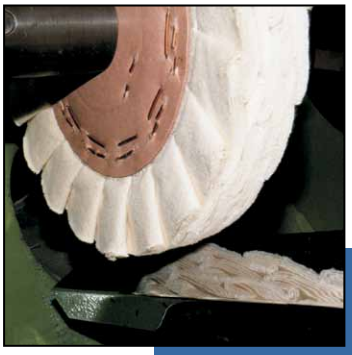
Cleaning stones FAPI-STONE are used in many companies to keep abrasive belts and flap grinding wheels clean and open. Cleaning stones have completely replaced the previously used pumice stone.

Dimension: 100 x 50 x 50 mm
Advantage: 20 - 40 fold lifetime of abrasive belts
no spray or grease necessary –» less dirt
no fire risk

NOTICE

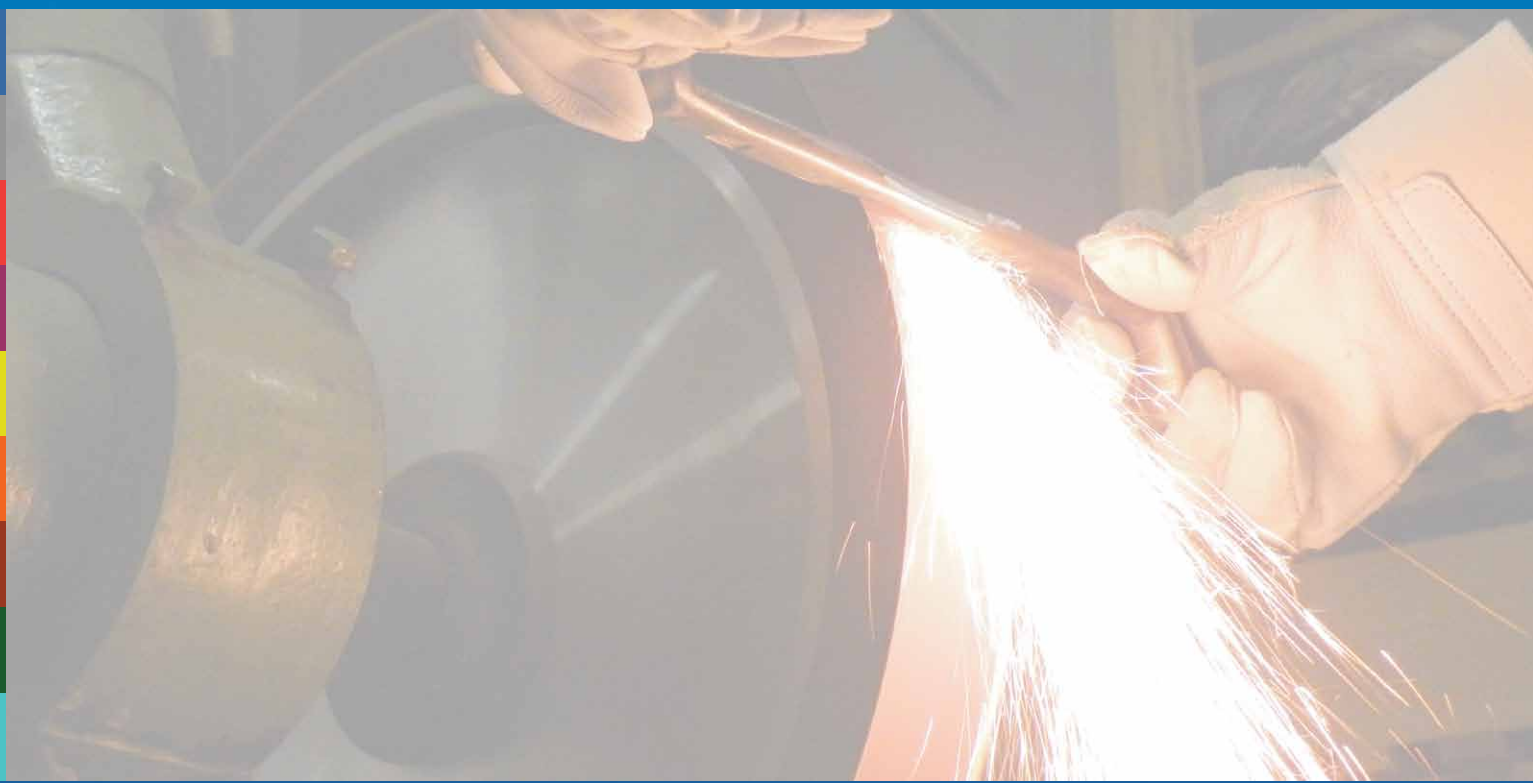
Grinding Technology

Deburring Technology



Polishing Technology

Brushing Technology



Friedrich August Picard GmbH & Co. KG
Heinrich-Schicht-Str. 7 • Telefon +49 (0)2192 / 85930-0 • www.picard-kg.com
D-42499 Hückeswagen • Telefax +49 (0)2192 / 85930-30 • info@picard-kg.com

0818.2