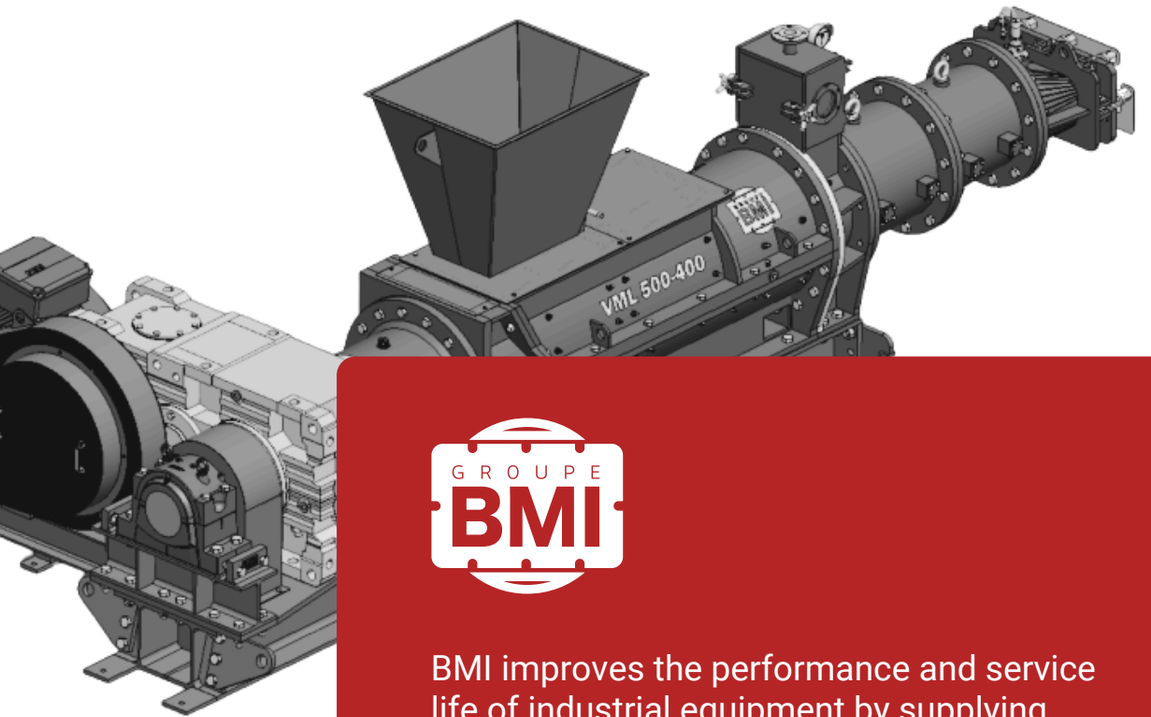




Wear Parts

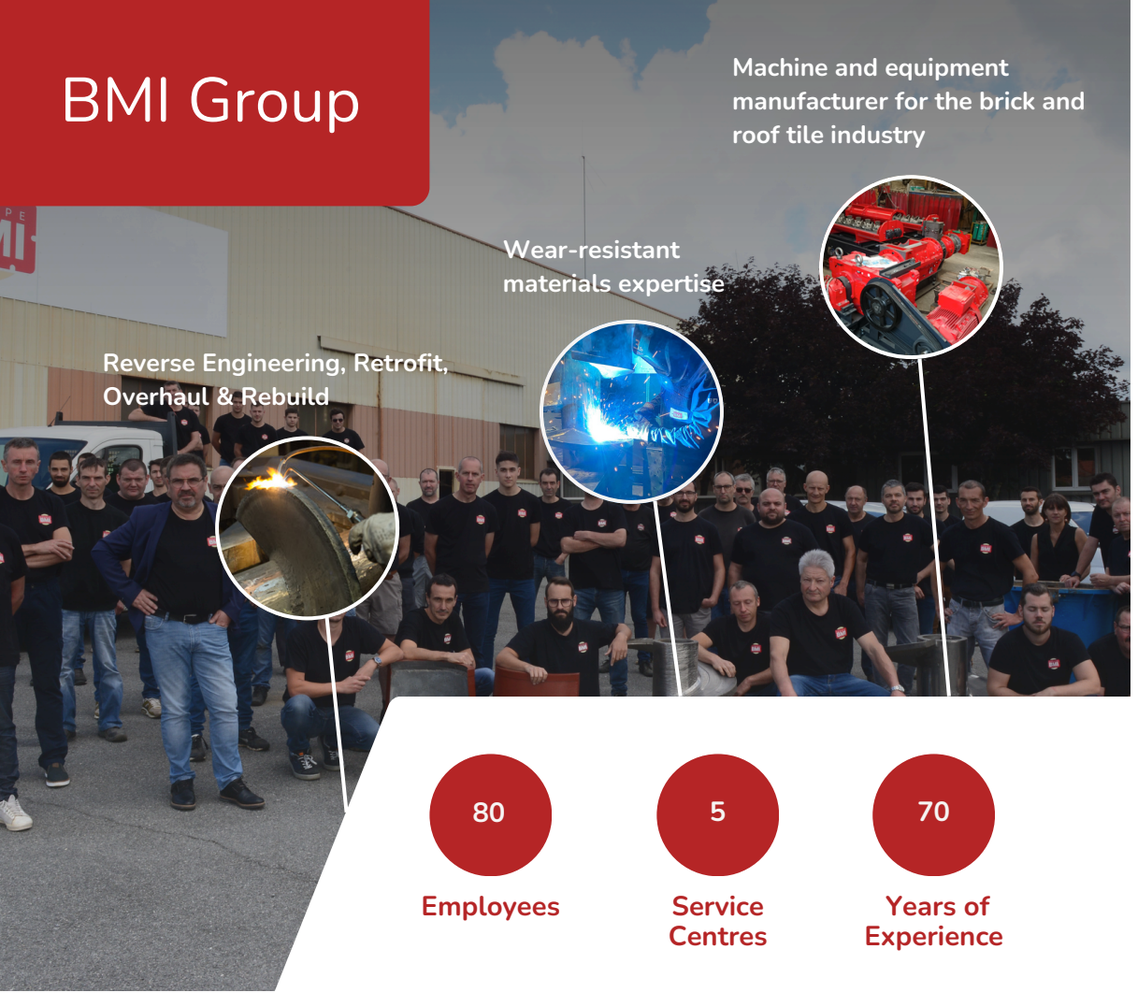
BMI improves the performance and service life of industrial equipment by supplying wear parts, engineered solutions and services for a wide range of industries.

Brick Industry
Ceramic Industry
Roof Tile Industry

Groupe BMI
28 Rue de la Mairie Le Puiset-Doré
49600 Montrevault-sur-Evre

+33 (0)2 41 75 69 00
contact@marybmi.com

BMI Group



80 Employees

5 Service Centres

70 Years of Experience

CERTIFIED PREMIUM SERVICES & QUALITY

With all key processes handled in-house — engineering, cutting, machining, hardfacing, fabrication and on-site services

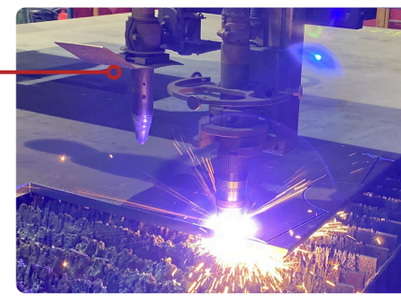
we provide our customers with outstanding responsiveness and consistent quality control throughout the process.

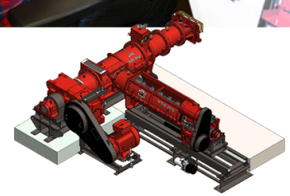




Cutting Workshop

Laser / Plasma / Oxy-fuel Cutting
Shearing & Punching





Machining Workshop

CNC Turning
Machining Centres
EDM – Electrical Discharge Machining



GROUPE BMI

We design, manufacture, install and maintain durable solutions to optimise the service life of your equipment.

With a team of 80 employees, we help industrial companies reduce wear, lower maintenance costs and improve equipment reliability.

Specialist in complete production lines for raw material preparation and processing.

PELERIN
Pièces Services Machines



Fabrication Workshop

Forging
Fabricators / Welders
Robotic Welding
Painting

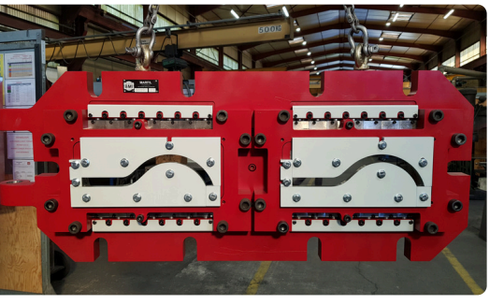


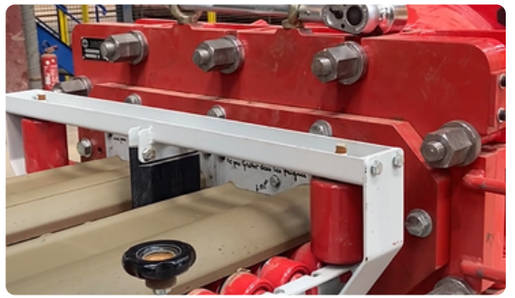


Dies

New die manufacturing

40 dies manufactured/year





Co-development
Designed according to customer requirements and precise process parameters (clay type, pressure, etc.).

Integration of high-performance components
Reduced costs and extended equipment service life.

Die retrofit / upgrade

(Repair, optimisation, component replacement)

35 Dies regenerated /year





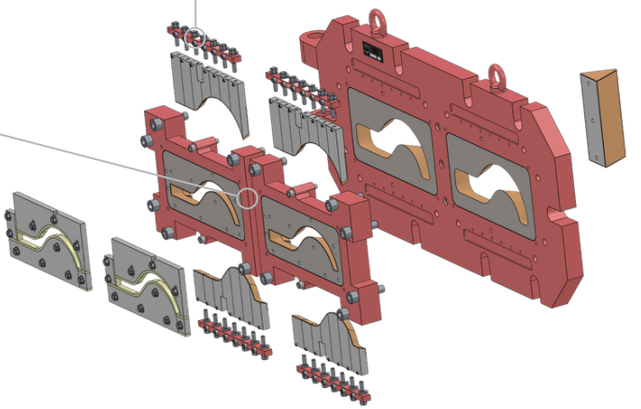


1991 Creation of the “Die Expertise” division

Numerous options

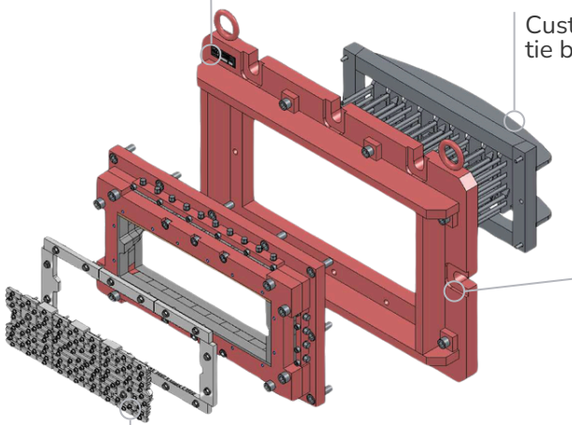


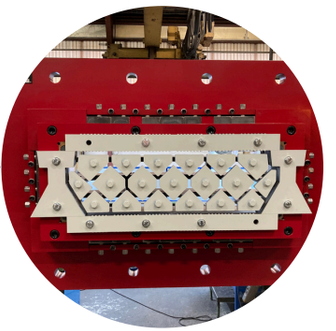
Precise flow adjustment thanks to externally adjustable brakes.



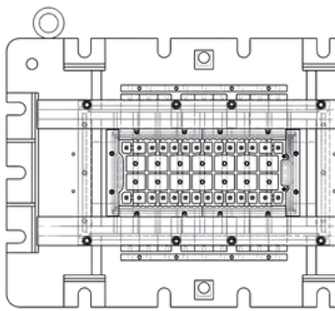
Removable inlet frames

Custom-designed tie bars



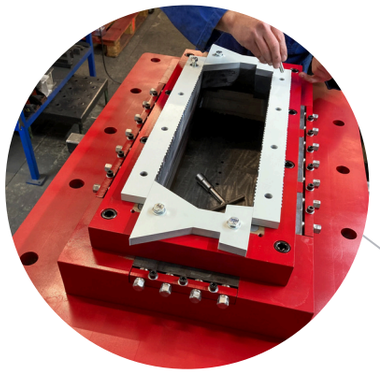


Custom-designed cores
Option to integrate counter cores



Die Components







Tie Bars

HTS 63 – Heat-treated steel, 63 HRC + HiChrome hardfacing (surface)
CR³ – Hard chrome plating
HiCarb – HiChrome lining (3 faces) + tungsten carbide bushings



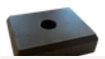
DuoCarb



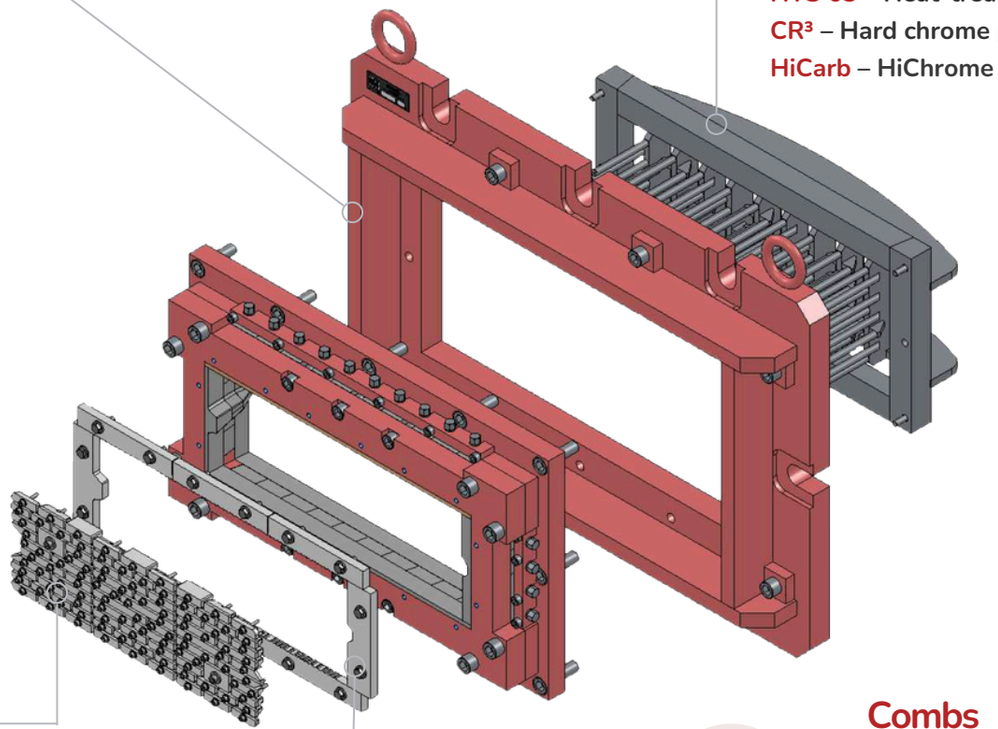
Ceraxis Al300



PurCarb



FusCarb





CR³



HiCarb

Cores

HTS 63 – Heat-treated steel, 63 HRC
Ceraxis – Al_2O_3 ceramic
FusCarb – Tungsten carbide infiltrated onto a steel support
DuoCarb – Sintered tungsten carbide on steel substrate
PurCarb – Monobloc sintered tungsten carbide



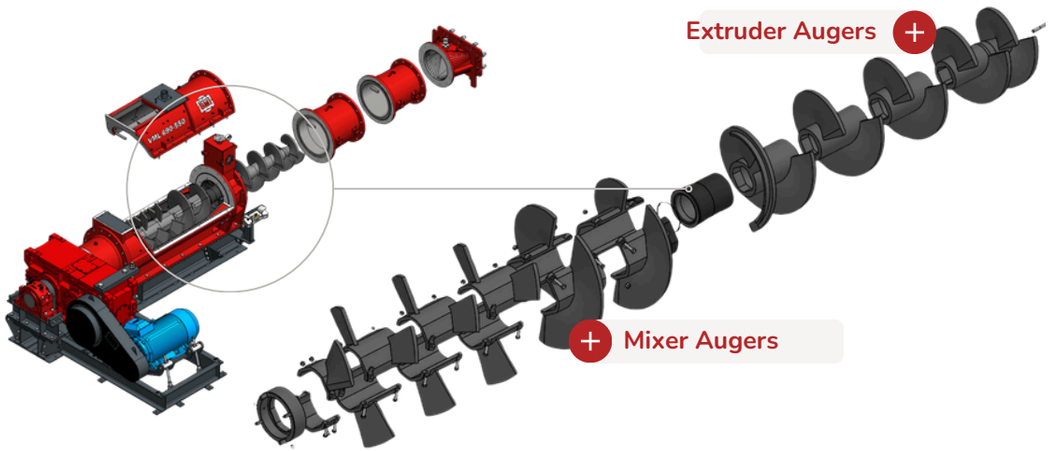
Combs

HTS 63 – Heat-treated steel, 63 HRC
FusCarb – Tungsten carbide infiltrated onto a steel support
DuoCarb – Sintered tungsten carbide on steel substrate



DuoCarb

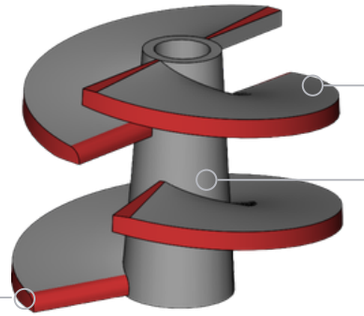
Augers



Extruder Augers

Mixer Augers

+ Multi-brand



HiChrome hardfacing

Geometrical and dimensional accuracy

FlexCarb hardfacing

Finish

+++ Precision grinding of blade surfaces and leading edges, low coefficient of friction

++ Intermediate grinding (Ra 3.2)

\+ Clean-up grinding

70 years of experience

In the optimisation, manufacture and repair of augers for all manufacturers.

650 augers refurbished/year

350 augers manufactured/year



Optimised flow

Optimised machine efficiency

Final product quality

Guaranteed interchangeability



Our Technical Expertise

Analysis of operating parameters, wear mechanisms and user requirements

Recommendation and optimisation
(geometry, selection of wear-resistant materials)

In-house manufacturing

Assembly, CNC geometric adjustment, robotic hardfacing

Final inspection

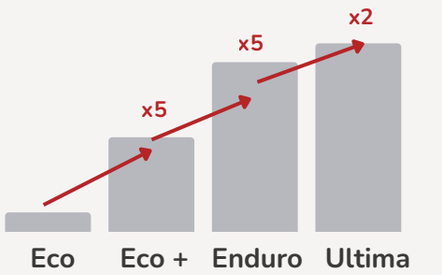


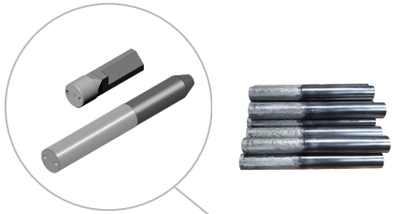


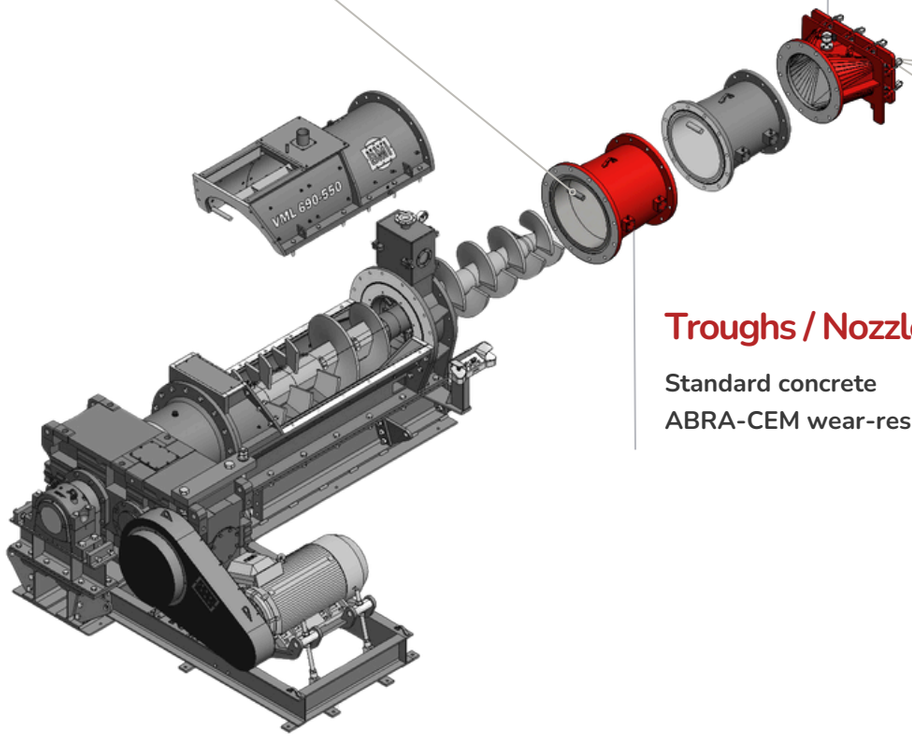
Wear Parts

Anti-rotation pins

Eco – 400 HB wear-resistant steel
Eco+ – HiChrome hardfacing
Enduro – FlexCarb hardfacing



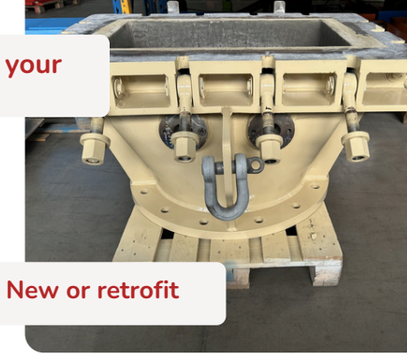




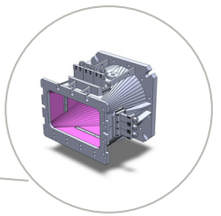
Pressure Heads

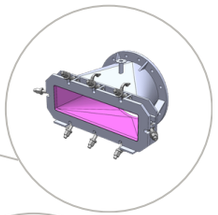
Steel
HiChrome flux-cored wire hardfacing
ClayFlow™ – HDPE lining
Ceraxis – Al_2O_3 ceramic

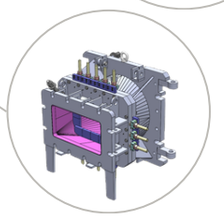
Custom-made pressure heads adapted to your process



New or retrofit

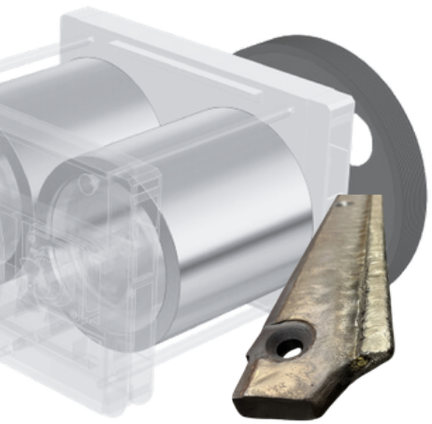






Troughs / Nozzles

Standard concrete
ABRA-CEM wear-resistant concrete



Roller Crusher Scrapers

Eco – 400 HB wear-resistant steel
Eco+ – HiChrome hardfacing
Enduro – FlexCarb hardfacing
Ultima – Ni-PTA WC powder hardfacing



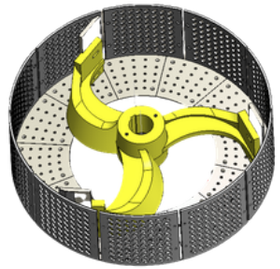
Grids

HiChrome
flux-cored
wire hardfacing

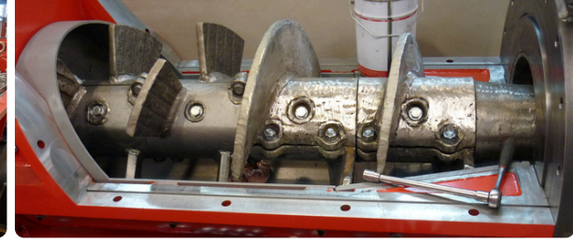
New or retrofit

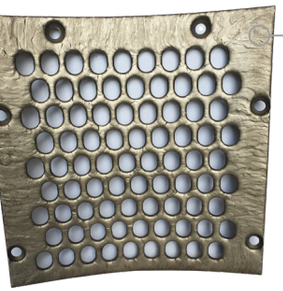


Wear Parts









Feeder linings

HiChrome flux-cored wire hardfacing



Paddle Shaft Hubs

HiChrome hardfacing
FlexCarb hardfacing

Pickers

HiChrome flux-cored wire hardfacing





Feeder tracks

Yron 500 / Raex 500



Feeder arms

HiChrome flux-cored wire hardfacing



Cutting blades

HiChrome flux-cored wire hardfacing

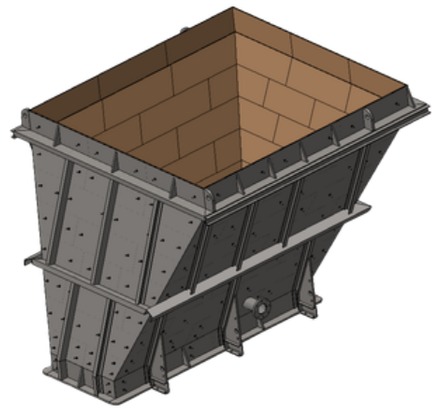


Wear-resistant solutions

Solutions to improve the reliability of your equipment

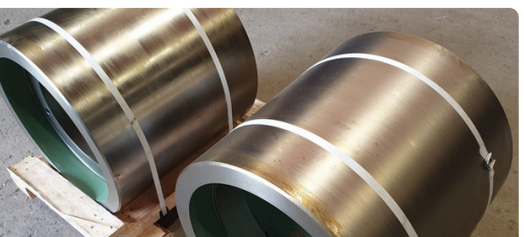
+ We select the most suitable material according to the type of wear and the operating conditions of your installation.

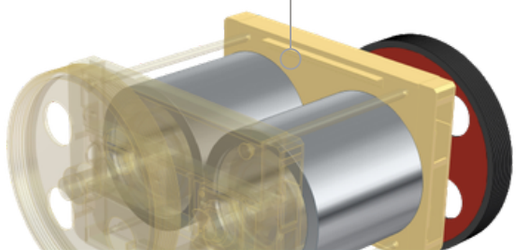
Extraction ducts
Piping
Hoppers
Chutes



Tire Rings

Chill-cast white/grey iron (± 580 HV)
Bainitic alloy (± 550 HV)
High chromium/molybdenum alloy (± 740 HV)







+ 3D SCAN / Dimensional survey

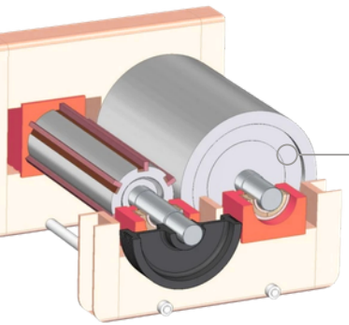
Maintenance / Retrofit



Rotating assemblies

100 years of experience

In the diagnosis, refurbishment and reliability improvement of all types of rotating assemblies, all brands.



Roller crushers / Disintegrators
Lump breakers / Lump breaker rotors
Multi-brand / Multiple industrial sectors



Our Technical Expertise

Diagnosis & recommendations
Analysis of clearances, wear and cracks
Audit report

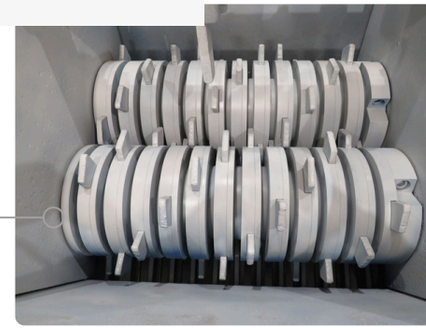
Replacement of:
Wear tyres
Wear rings
Sealing joints
Bearings
Pulleys
Tie rods and nuts.
Crowns and hubs

Assembly, painting
Complete logistics

Technical acceptance and conformity report

Machine refurbishment & modernisation

Technical diagnosis & expertise
Mechanical refurbishment
Modernisation & improvement
Pre-assembly / assembly
Testing
On-site assembly
Commissioning





Drawing unit
Mixers
Feeders
Roller crushers
Disintegrators
Brick mills
Rotating assemblies

On-site Service

Assembly and dismantling of equipment
Replacement of wear parts and spare parts
Assistance with machine start-up
Mechanical and operational adjustments





Mechanical diagnosis on equipment in operation
Analysis of the causes of wear / malfunction
Recommendations for technical improvement

Wear-resistant materials



RAEX® wear-resistant steels

Hardness
400 / 450 / 500 HB

Severe abrasion resistance

Good mechanical strength

	Hardness HBW	Impact toughness	Mechanical Properties			Thicknesses mm
			Yield strength Rp0.2	Tensile strength Rm	Elongation (A%)	
RAEX 400	360-440	30J at -40°C	1100	1300	10	Sheet: 3 to 8 Plate: 6 to 80
RAEX 450	420-500	30J at -40°C	1250	1450	9	
RAEX 500	470-540	30J at -40°C	1300	1650	10	



Applications

Crushers and conveying installations, blades, buckets, hoppers, chutes, augers, screw flights, piping, elbows, cages, hoppers, tanks, screening equipment, etc.

Datasheet

ABRA-CEM® wear-resistant concrete

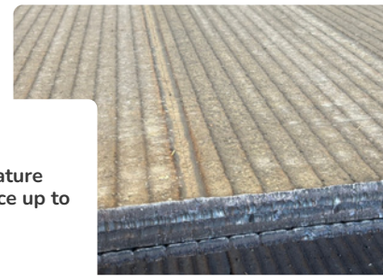
High tangential abrasion resistance

Applications :
Troughs, pressure heads, mixer linings, ducts, pipes, chutes, etc.

Datasheet



ABRA-FACE® clad plates



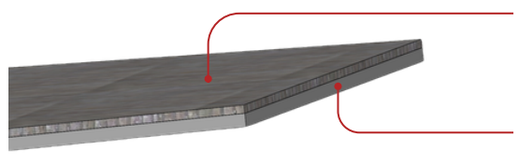
Hardness
62-63-64 HRC

Extreme abrasion resistance

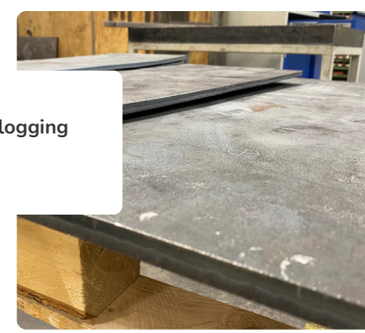
Temperature resistance up to 650°C

	Hardness HRc	Service temperature	Thicknesses mm	Datasheet
ABRA-FACE 63	58-62	300°C	4+2 5+3 6+4 8+5 12+8 20+5 25+5	
ABRA-FACE 65-450	59-63	450°C		
ABRA-FACE 67-650	60-64	650°C		

Applications : Components exposed to severe wear and high temperatures, steelmaking, cement plants, recycling, thermal power plants, biomass plants, etc.



ABRA-GLIDE® clad plates



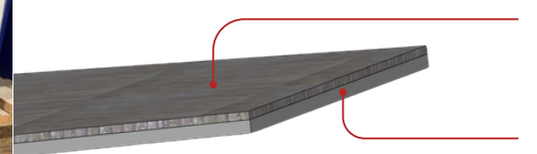
Hardness
62 HRC

Temperature resistance up to 450°C

Reduces clogging risks

Thicknesses: 5+5 / 6+6 / 10+10 / 12+12

Applications: Screening, lining, sliding plates, hoppers, etc.



Datasheet

Consumables



Hardfacing, Repair, Manufacture of New Parts

Flux-Cored Wires

		Abrasion Resistance	Impact Resistance	Temperature Resistance	Other Properties
High-chromium cast iron	FCW63	★★★★☆	★★½☆☆	300°C	
	FCW63B	★★★★½	★★★☆☆	300°C	
	FCW65-450	★★★★★	★★★½☆	450°C	
	FCW67-650	★★★★★	★★★★½	650°C	
Tool steels	FCW600HB	★★½☆☆	★★★★★	450°C	Friction
	FCW650HB	★★★☆☆	★★★★★	500°C	Friction
	FCW600TIC	★★★★☆	★★★★★	250°C	
High-performance alloys	FCW70NANO	★★★★★	★★★★½	750°C	
	FCW TUF-Mn-O	★★★½☆	★★★★★	250°C	Friction
	FCW60WC	★★★★★	★★★★★	600°C	Corrosion



Resistant to abrasion, impacts, heat and friction

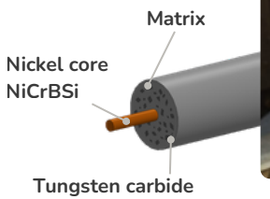
FLEXCARB®: Flexible cords

FR82

Crushed carbides (FTC)
54–61% carbides
≈2300 HV



Proven historical technology
Multi-purpose solution





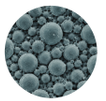
FR82 NXT



Crushed sintered carbides
42–52% carbides
≈1500-1800 HV

New-generation cost-effective solution
Good performance / cost ratio

FR92



Spherical carbides (SFTC)
53–58% carbides
≈3100 HV

Best abrasion resistance
Improved impact resistance

Electrodes

	Hardness	Target wear type	Available diameters (mm)
SE63	~60–63 HRc	Abrasion / Moderate impacts	3.2
SE68	~64 HRc	Extreme abrasion	3.2 / 4
SE29-9	~240 HB	Stainless / dissimilar steel joining	3.2
SE-T-64 Tubular electrode	~64 HRc	Extreme abrasion	6 / 8 / 12



Powders

Processes: flame spray-fusing / PTA

Nickel-based alloys Ni-Fuse / Ni-PTA

Matrix hardness: 18 to 60 HRC
Protection against wear and corrosion

Tungsten carbide reinforced powders
Ni-Fuse WC / Ni-Fuse NXT / Ni-PTA WC

Matrix hardness: up to 60 HRC
Carbide content: 20 to 60%
Carbide microhardness: 1800 to 2500 HV

For applications exposed to severe abrasion.

