



TURNKEY[®]
RHINO

Bucket Equipment for
Mining and Quarries



30 YEARS OF EXPERIENCE

A subsidiary of the international Safe group, FEURST was created in 1992. FEURST manufactures teeth, adapters and protections in the group's factories and our selected subcontractors. Over 1 million wear parts are produced and sold each year worldwide.



R&D

With its own Design and Methods Office, equipped with the latest 3D design and printing technologies, Feurst is able to adapt to all market demands, including the most demanding ones.



PATENTED TECHNOLOGY

FEURST holds patents on the TURNKEY® Grizzly and TURNKEY® Rhino range, which cover the locking devices and adapters.



TECHNICAL SUPPORT

Thanks to a very knowledgeable technical and sales team, FEURST is able to offer tailor-made solutions adapted to all applications.



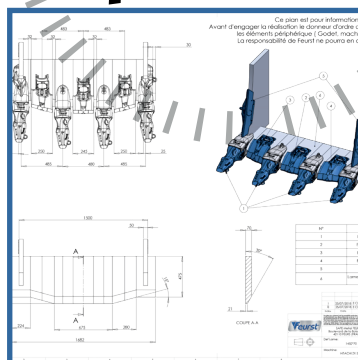
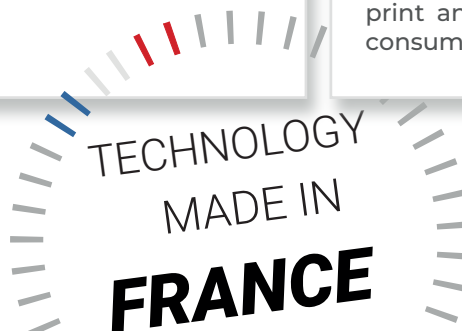
CUSTOMER SUPPORT

Thanks to an optimised Supply chain, sales administration, its new online platform, allow FEURST to deliver a high level of performance to any customers.



CSR

95% of FEURST products are made from recycled materials (scrap). And 90% of its own waste is recycled. The Safe Group invests and builds a long-term action plan to reduce its carbon footprint and therefore its energy consumption.





TURNKEY® Rhino is a wide range of ground engaging tools using hammerless locking devices with permanent compression for teeth and shrouds.

The *TURNKEY®* Rhino process is :

- A secured pin locking at 180°
- A dustproof plug
- Permanent compression of the tooth on the adaptor and compensation for wear.
- A reusable locking devices.

The horizontal, rotative, and self locking devices, offers to the user a great ease and safe handling during assembly and disassembly.

- 30 %
assembly time

+ 30 %
lifetime

350 T
Maximum machine weight

300+
References



The Technology

TURNKEY® Rhino

The teeth & adapters from the *TURNKEY® Rhino* range, patented FEURST products, are designed to fulfil the requirements of mining and quarrying machinery.

Our buckets equipments combine performance, productivity, and durability in the toughest abrasive shock applications.

Reversible Wear Cap

A sliding mechanical wear cap is mounted on top of each adaptor to avoid premature wear and damage.

The wear caps are reversible, held in place by the teeth, and last up to 2 tooth changes, depending on the abrasiveness of the material.

Long Life Time

All teeth profiles are designed to self-sharpen as they wear and do not need to be reversed.

This reduces machine downtime. The adapter's geometry is designed to protect the welds from wear, ensuring a secure fitting at all times.

The teeth are locked onto the adapter, minimizing movement and thus wear on the adapter nose.

Adapter noses do not need to be rebuilt.

Optimum Safety

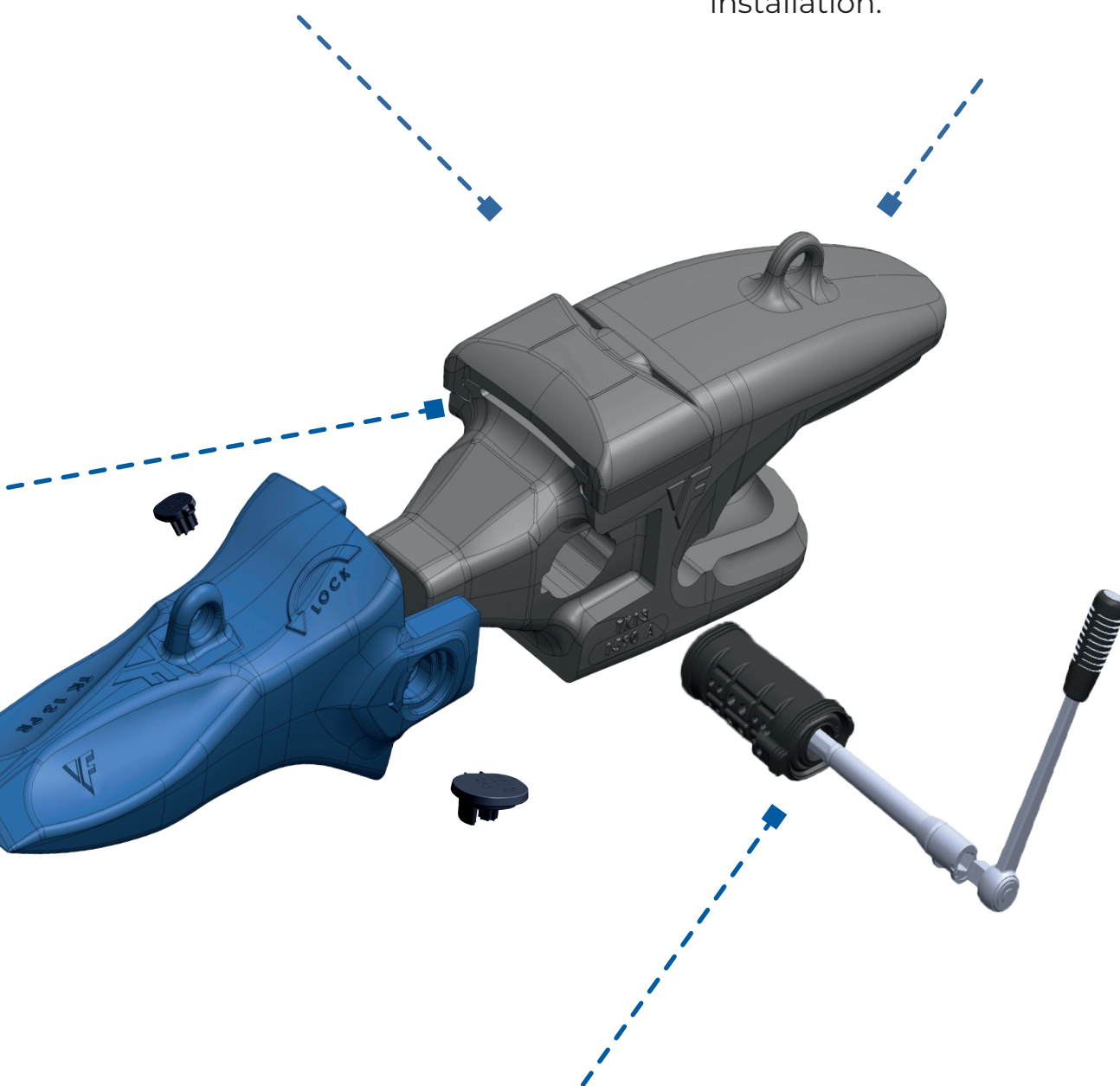
The *TURNKEY® Rhino* locking devices is a hammerless system , greatly reducing the risk of metal projection and accidents.

The pins are simply pushed by hand and turned 180° counter-clockwise using a manual assembly tool.

Quicker Teeth Change

Teeth and wear caps are quick and easy to replace on site by a single person.

A lifting ring on the upper part of the tooth and adapters allows for a smooth installation.



Pin, Plug & Caps

The pin and the plug can not be damaged during installation or disassembly.

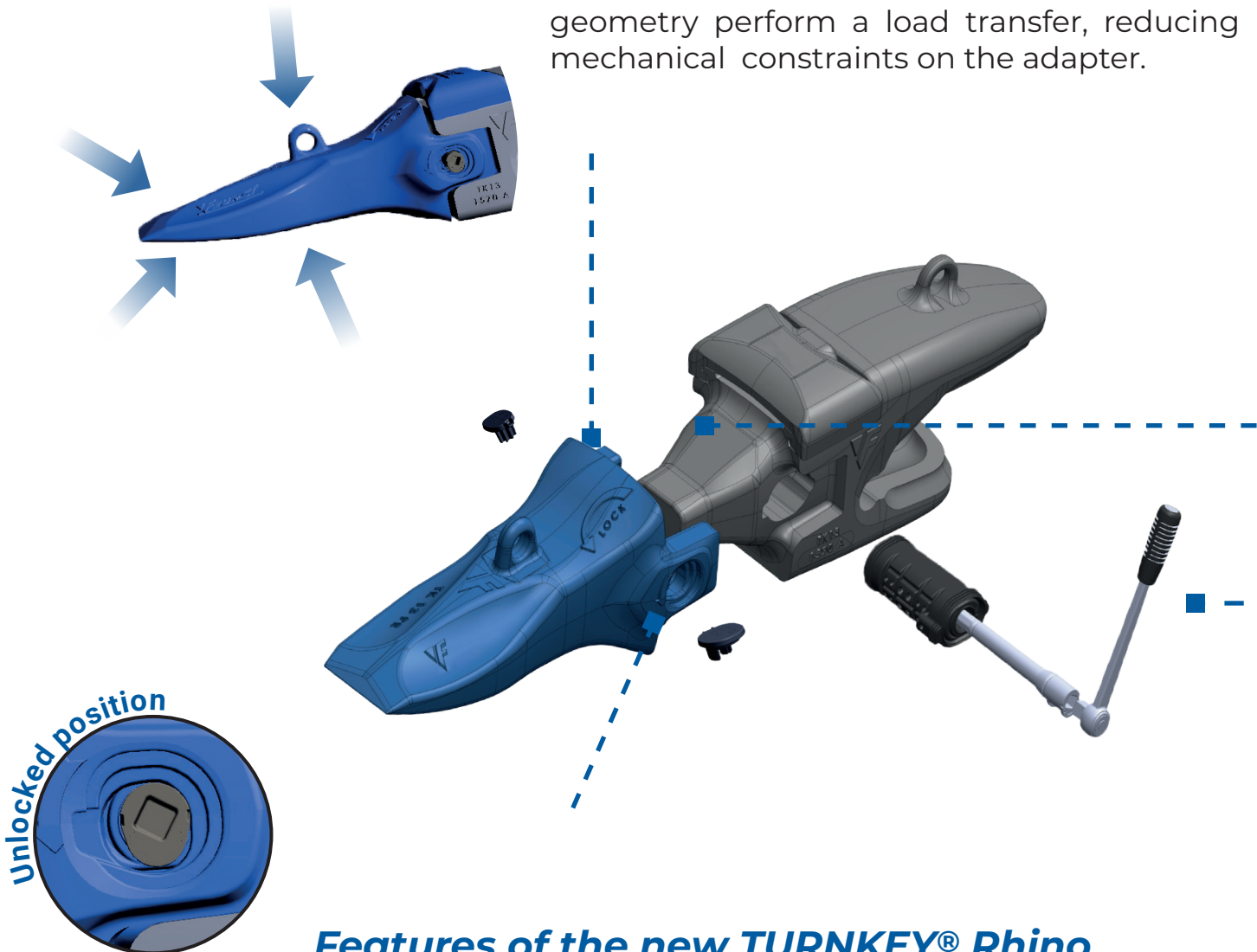
The dustproof plug protects and facilitates teeth replacement operations. The caps secure quick access to pin socket hole.



The Solution for

More wear Material

The tooth's ears combined with the nose's geometry perform a load transfer, reducing mechanical constraints on the adapter.



Features of the new TURNKEY® Rhino locking devices

Reduce risk of bad fitting

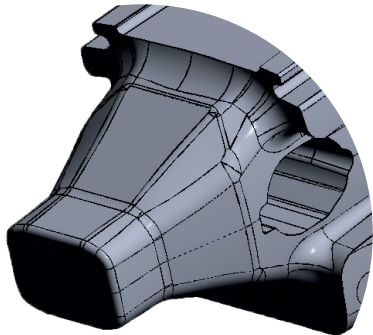
Only one way coding conical fitting plug

Only one way coding fitting pin

At the end of a 180° counter-clockwise rotation, a tactile effort and a sound element confirm that the system is locked.



Mining and Quarries



Nose

The complex shapes of the nose, the conical seats, the stabilization flats, combined with the ears, allow optimal tightening with the help of the locking devices.



Locking devices

The innovative, rotating, eccentric, and dustproof system that compresses the tooth on the adapter, combined with the performance of the nose, ensures assembly performance, in-service holding, and disassembly under all circumstances.

BENEFITS



◆ Performance and Safety in service

- *Innovative and secure locking devices*
- *Perfect fitting*
- *No loss of teeth*
- *Better soil penetration*
- *Driver comfort*
- *Very easy assembly and disassembly*
- *Bucket loading optimization*



◆ Reduction of operating costs (T.C.O*)

- *Reduced fuel consumption*



- *Zero machine downtime*



- *Best quality/price ratio*

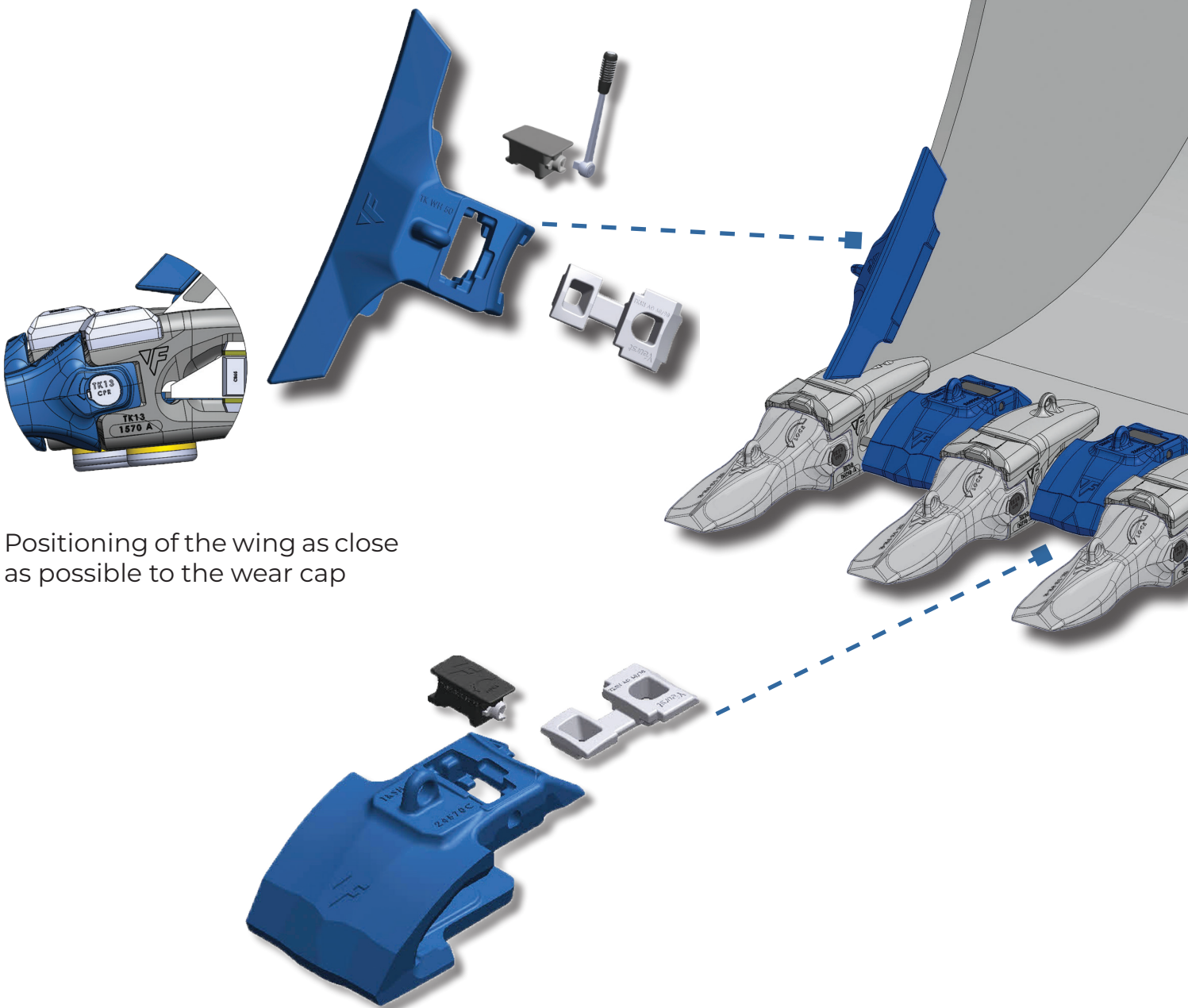
- Extra-long life adapters
- Increased wear ratio up to 75%
- Protection of the machine and its components



The complete solution to

We offer complete protection for your buckets base lip and wings working in abrasive conditions.

The wing shrouds also protect the base of the wings and thus limit wear in these highly stressed areas.



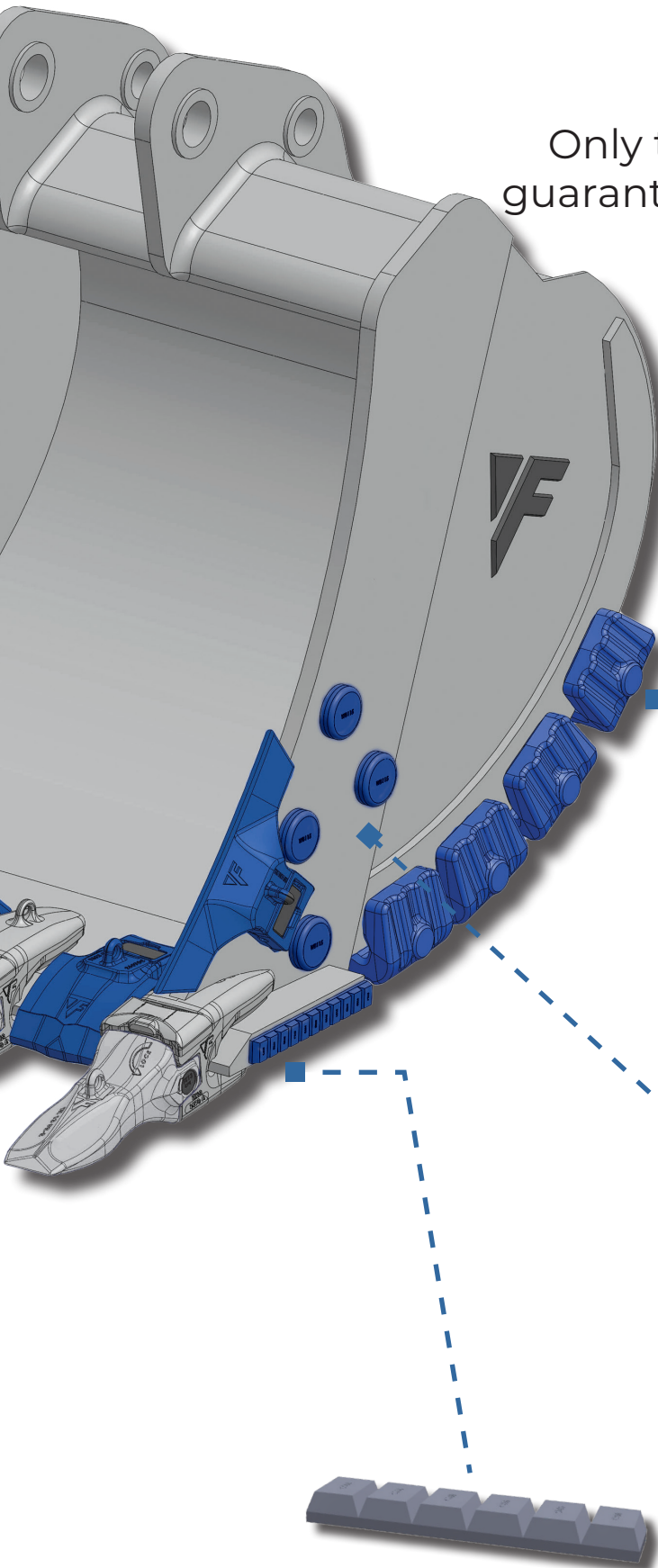
Positioning of the wing as close as possible to the wear cap

We have inserted chamfers in each side of the lip shroud in order to position as close as possible of the bucket lip and covering adapter's weldings.

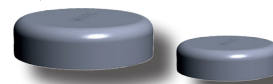
protect your buckets



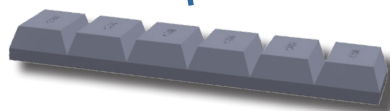
Only the combination of all our products guarantees the optimization of the bucket.



Weldable Heel Shrouds
to protect the bottom
and sides of the bucket

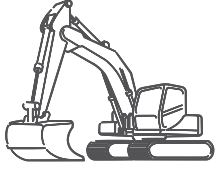
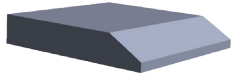
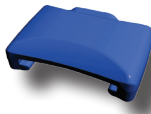
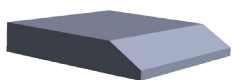
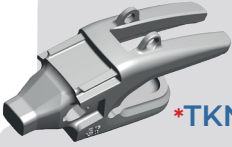
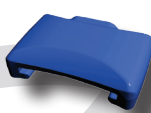


*WB to be welded to
protect the sides



Blade reinforcement with *CB in
case of very high abrasion

*WB = Wear Button
*CB = Chocky Bar

SIZE	MACHINES Weight	ADAPTERS	TEETH
10	 30 - 42 T  50-60 mm 2 / 2.36 / 2.50 in  STD. 70T HD 50T	 TKN10 1550 A 10° TKN10 1560 A 10°  TKN10 1550 STD TKN10 1560 STD TKN10 1565 STD  *TKN10 1560 A10° STR  TKN10 NS  TKN 10 PA	 TKN10 PE  TKN10 PR  TKN10 PR-R  TKN10 DPE  TKN10 PE-C  TKN10 DPE - AUS  **TKN10 RM-R  TKN10 EL  **TKN10 RM-RR
11	 40 - 52 T  60-70 mm 2.36 / 2.5 / 2.75 in  STD. 108T HD 80T	 TKN11 1560 A 10° TKN11 1570 A 10°  TKN11 1560 STD TKN11 1570 STD TKN11 1565 STD  *TKN11 1570 A10° STR  TKN11 NS  TKN 11 PA	 TKN11 PE  TKN11 PR  TKN11 PR-R  TKN11 DPE  TKN11 PE-C  TKN11 DPE - AUS  TKN11 RM-R  TKN11 EL  TKN11 RM-RR

**** In development**
***On request**

Excavators



LOCKING DEVICES

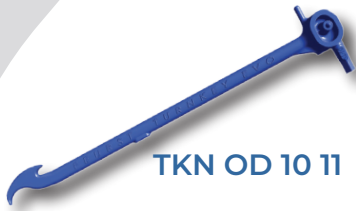


TKN10 SB



TKN10 CL

TKN10 SB-XHD

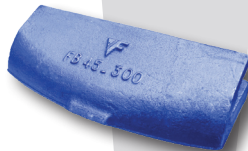


TKN OD 10 11

BUCKET SHROUDS

BLADE SHROUDS

Compatible Turnkey®



FB 45-300

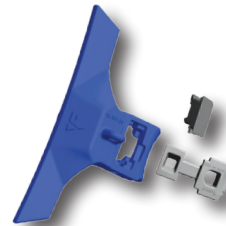


TKSH EXC 240 60 C
TKSH EXC 240 60 L/R



TKSH OD

WING SHROUDS



TKWH 30
Wing Thickness (30mm)



TKSH 60-90 AD



TKSH 60-90 CL

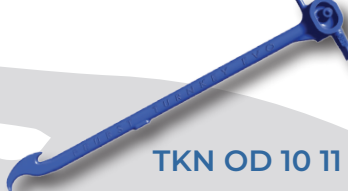


TKN11 SB



TKN11 CL

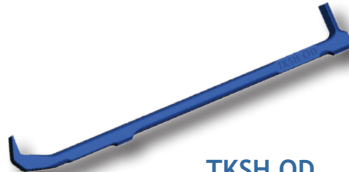
TKN11 SB-XHD



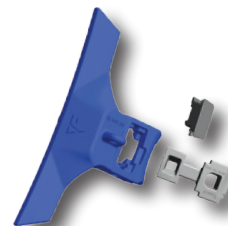
TKN OD 10 11



TKSH EXC 240 60 C
TKSH EXC 240 60 L/R
TKSH EXC 245 70 C
TKSH EXC 250 70 L/R
TKSH EXC 280 70 C
TKSH EXC 280 70 L/R
TKSH EXC 320 70 C
TKSH EXC 320 70 L/R
TKSH EXC 370 70 C
TKSH EXC 370 70 L/R



TKSH OD



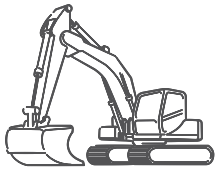
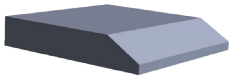
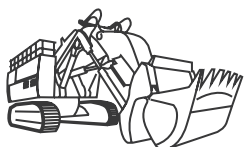
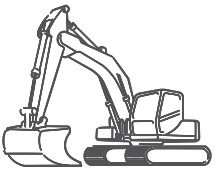
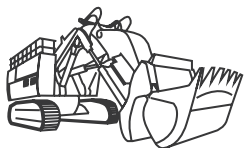
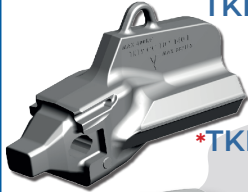
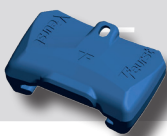
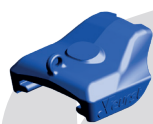
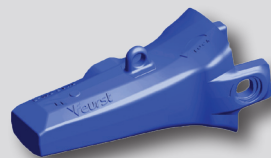
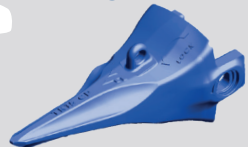
TKWH 50
Wing Thickness (50mm)



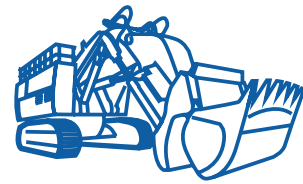
TKSH 60-90 AD



TKSH 60-90 CL

SIZE	MACHINES Weight	ADAPTERS	TEETH
13	 50- 87 T  70-80-90 mm 2.75/3.15/3.5 in  STD. 180T HD 135T	 TKN13 1570 A 10° TKN13 1580 A 10° TKN13 1590 A 10°  TKN13 1570 STD TKN13 1590 STD  TKN13 1880 A16° STR TKN13 1590 A10° STR  TKN13 NS  TKN 13 PA	 TKN13 PE  TKN13 PR  TKN13 PR-R  TKN13 RM-R  TKN13 PE-C  TKN13 RM-RR  TKN13 DPE  TKN13 CP
15	 85 - 150 T  90-100 mm 3.5/4 in  STD. 250T HD 190T	 TKN15 1590 A 10° TKN15 1510 A 10°  *TKN15 CC 10°100  TKN15 15100 A10° STR  TKN15 NS  TKN15 PA  **TKN15 PA WH60	 TKN15 PE  TKN15 PR  TKN15 PE-C  TKN15 PR-R  TKN15 RM-R  TKN15 RM-RR  TKN15 CP

Excavators



LOCKING DEVICES

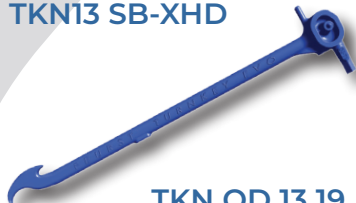


TKN13 SB



TKN13 CL

TKN13 SB-XHD



TKN OD 13 19

BUCKET SHROUDS

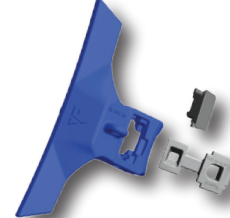
BLADE SHROUDS



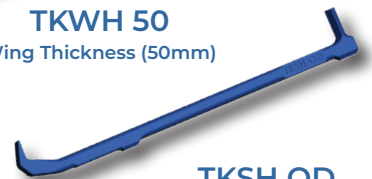
TKSH EXC 245 70 C
TKSH EXC 250 70 L/R
TKSH EXC 280 70 C
TKSH EXC 280 70 L/R
TKSH EXC 320 70 C
TKSH EXC 320 70 L/R
TKSH EXC 370 70 C
TKSH EXC 370 70 L/R

TKSH EXC 245 90 C
TKSH EXC 245 90 L/R
TKSH EXC 280 90 C
TKSH EXC 280 90 L/R
TKSH EXC 320 90 C
TKSH EXC 320 90 L/R
TKSH EXC 360 90 C
TKSH EXC 360 90 L/R

WING SHROUDS



TKWH 50
Wing Thickness (50mm)



TKSH OD



TKSH 60-90 AD



TKSH 60-90 CL



TKN15 SB



TKN15 CL

TKN15 SB-XHD



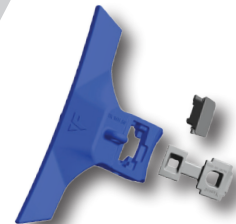
TKN OD 13 19



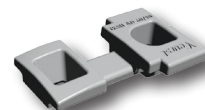
TKSH EXC 245 90 C
TKSH EXC 245 90 L/R
TKSH EXC 280 90 C
TKSH EXC 280 90 L/R
TKSH EXC 320 90 C
TKSH EXC 320 90 L/R
TKSH EXC 360 90 C
TKSH EXC 360 90 L/R
TKSH EXC 345 100 C
TKSH EXC 345 100 L/R



TKSH OD



TKWH 50
Wing Thickness (50mm)



TKSH 60-90 AD



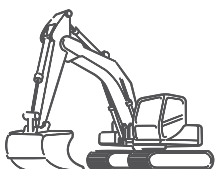
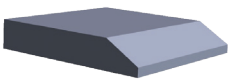
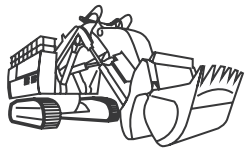
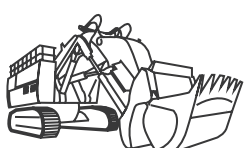
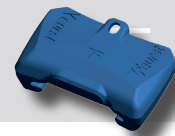
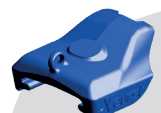
TKSH 60-90 CL



TKSH 100-140 AD



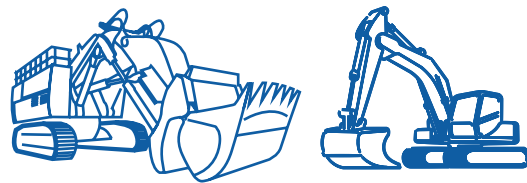
TKSH 100-140 CL

SIZE	MACHINES Weight	ADAPTERS	TEETH
17	 140 - 200 T  100-120 mm 4 / 4.75 in  STD. 315T HD 250T	 TKN17 15100 A 10° TKN17 15120 A 10°  **TKN17 CC 10°120  TKN17 15120 A10° STR  TKN17 NS  **TKN17 PA + PA CC  *TKN17 PA WH70	 TKN17 PE-C  TKN17 PE  TKN17 PR  **TKN17 PR-R  TKN17 RM-R  TKN17 RM-RR
	 200 - 350 T  120-140 mm 4.75 / 5.5 in  STD. 460T HD 340T	 TKN19 15120 A 10° TKN19 15140 A 10°  TKN19 CC 10°140  TKN19 15140 A10° STR  TKN19 NS  TKN19 PA + PA CC  TKN19 PA WH90	 TKN19 PE-C  **TKN19 PE  TKN19 PR  TKN19 PR-R  TKN19 RM-RR  TKN19 RM-R

** In development

*On request

Excavators



LOCKING DEVICES



TKN17 SB



TKN17 CL

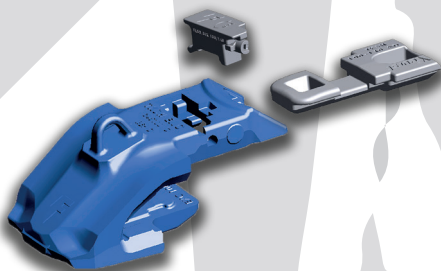
TKN17 SB-XHD



TKN OD 13 19

BUCKET SHROUDS

BLADE SHROUDS

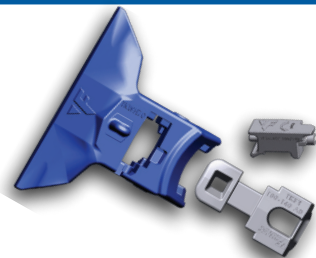


TKSH EXC 345 100 C
TKSH EXC 345 100 L/R
TKSH EXC 380 120 C
TKSH EXC 380 120 L/R



TKSH OD

WING SHROUDS



TKWH 70
Wing Thickness (70mm)



TKSH 100-140 AD



TKSH 100-140 CL

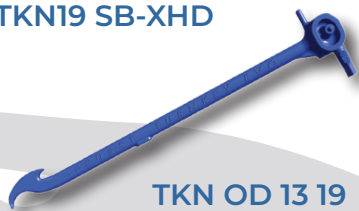


TKN19 SB

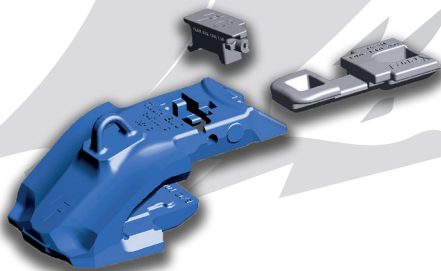


TKN19 CL

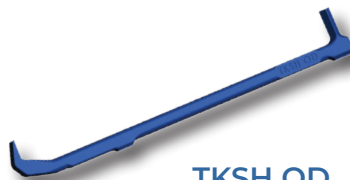
TKN19 SB-XHD



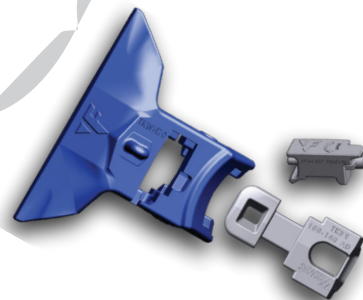
TKN OD 13 19



TKSH EXC 380 120 C
TKSH EXC 380 120 L/R
TKSH EXC 420 140 C
TKSH EXC 420 140 L/R



TKSH OD



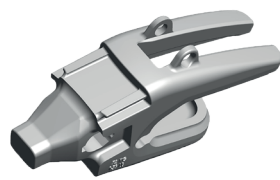
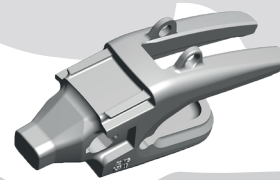
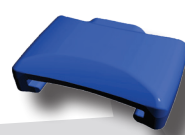
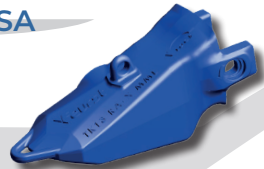
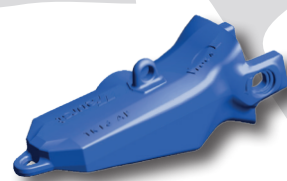
TKWH 90
Wing Thickness (90mm)



TKSH 100-140 AD



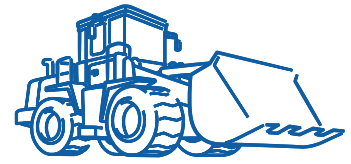
TKSH 100-140 CL

SIZE	MACHINES Weight	ADAPTERS	TEETH
10	 STD. HD 85T 60T  50-60 mm 2 / 2.36 / 2.50 in	 TKN10 1850 A 16° TKN10 1860 A 16° TKN10 1850 AR 16° TKN10 1850 AL 16°  *TKN10 1550 STD *TKN10 1560 STD *TKN10 1665 STD  *TKN10 1560 A10° STR  TKN10 NS  TKN 10 PA	 **TKN10 SA  TKN10 RA-X  TKN10 AP * For use with RA-X tooth only
11	 STD. HD 133T 93T  60-70 mm 2.36 / 2.5 / 2.75 in	 TKN11 1860 A 16° TKN11 1870 A 16° TKN11 1860 AR 16° TKN11 1860 AL 16°  *TKN11 1560 STD *TKN11 1570 STD *TKN11 1565 STD  *TKN11 1570 A10° STR  TKN11 NS  TKN 11 PA	 **TKN11 SA  TKN11 RA-X  TKN11 AP * For use with RA-X tooth only

**** In development**

***On request**

Wheel Loaders



LOCKING DEVICES



TKN10 SB



TKN10 CL

TKN10 SB-XHD



TKN OD 10 11



TKN11 SB



TKN11 CL

TKN10 SB-XHD

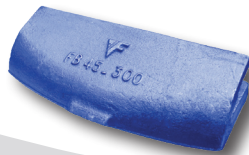


TKN OD 10 11

BUCKET SHROUDS

BLADE SHROUDS

Compatible Turnkey®



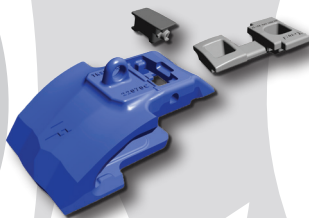
FB45-300



TKSH OD



FB60-70 TKN
FB60 200 TKN
FB60 200 L / R - TKN
FB60 250 TKN
FB60 300 TKN
FB60 350 TKN
FB70 250 TKN
FB60-70 L / R - TKN



TKSH LOAD 370 70 C
TKSH LOAD 370 70 L / R



TKSH OD

WING SHROUDS



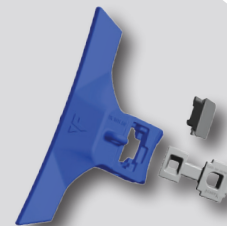
TKWH 30
Wing Thickness (30mm)



TKSH 60-90 AD



TKSH 60-90 CL



TKWH 50
Wing Thickness (50mm)



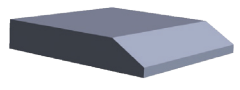
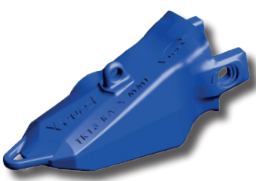
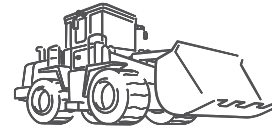
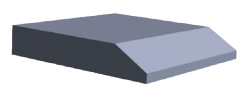
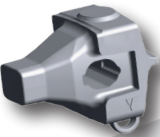
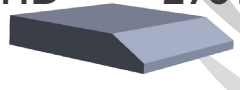
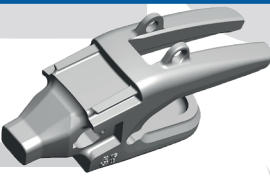
RPF 300 (A souder)
Wing Thickness (30mm)



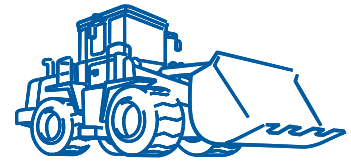
TKSH 60-90 AD



TKSH 60-90 CL

SIZE	MACHINES Weight	ADAPTERS	TEETH
13	 STD. 170T HD 133T  70-80-90 mm 2.75/3.15/3.54in	 TKN13 1870 A 16° TKN13 1880 A 16° TKN13 1880 A 16°R TKN13 1880 A 16°L TKN13 1890 A 16°  TKN13 1880 A16° STR TKN13 1590 A10° STR  TKN13 NS  TKN 13 PA	 TKN13 SA  TKN13 RA-X  TKN13 AP * For use with RA-X tooth only
15	 STD. 280T HD 220T  90-100 mm 3.5 / 4 in	 TKN15 1890 A 16° TKN15 18100 A 16°  TKN15 NS  TKN15 15100 A10° STR  TKN 15 PA	 TKN15 SA  TKN15 RPL
17	 STD. 300T HD 270T  100-120 mm 4 / 4.75 in	 TKN17 15100 A 10° TKN17 15120 A 10°  TKN17 NS  *TKN17 15120 A10° STR  TKN 17 PA	 **TKN17 RPL

Wheel Loaders



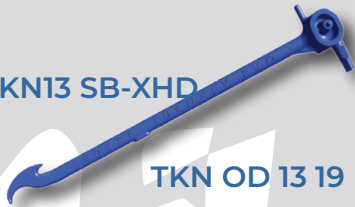
LOCKING DEVICES



TKN13 SB



TKN13 CL



TKN13 SB-XHD

TKN OD 13 19

BUCKET SHROUDS

BLADE SHROUDS

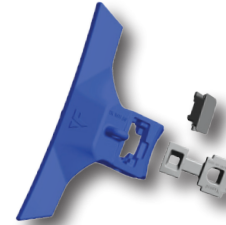


TKSH LOAD 370 70 C
TKSH LOAD 370 70 L/R
TKSH LOAD 370 76 C
TKSH LOAD 370 76 L/R
TKSH LOAD 370 80 C
TKSH LOAD 370 80 L/R
TKSH LOAD 370 90 C
TKSH LOAD 370 90 L/R

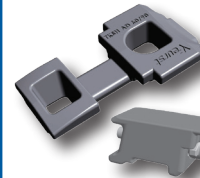


TKSH OD - 1.5 Kg

WING SHROUDS



TKWH 50
Wing Thickness (50mm)



TKSH 60-90 AD



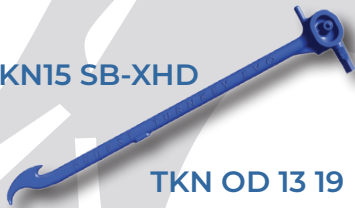
TKSH 60-90 CL



TKN15 SB

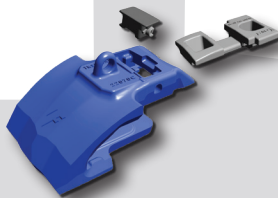


TKN15 CL

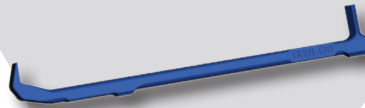


TKN15 SB-XHD

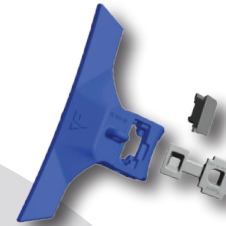
TKN OD 13 19



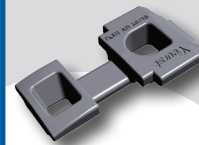
TKSH LOAD 370 90 C
TKSH LOAD 370 90 L/R
TKSH LOAD 370 100 C
TKSH LOAD 370 100 L/R



TKSH OD



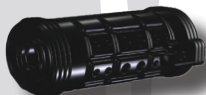
TKWH 50
Wing Thickness (50mm)



TKSH 60-90 AD



TKSH 60-90 CL



TKN17 SB



TKN17 CL



TKN17 SB-XHD

TKN OD 13 19



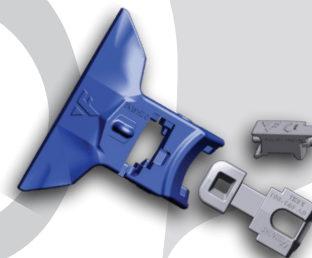
TKSH 100-140 AD



TKSH 100-140 CL

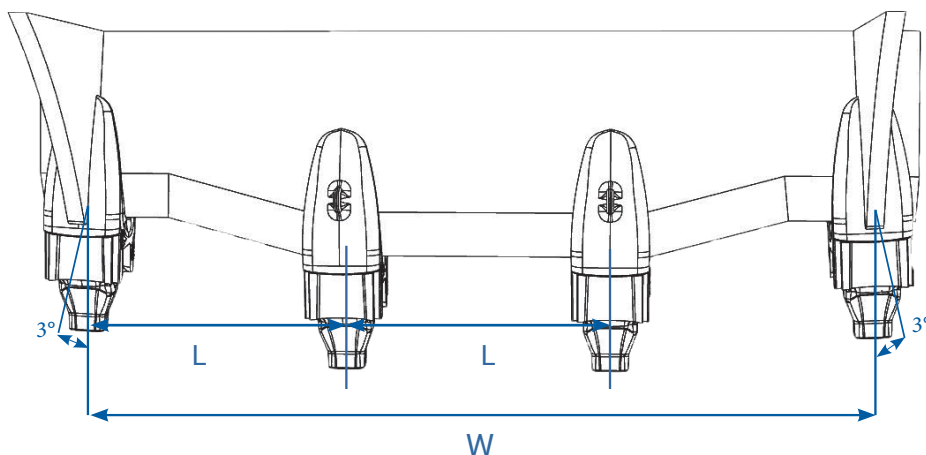


TKSH OD



TKWH 70
Wing Thickness (70mm)

Determination of the number of TURNKEY® adapters for a given width of bucket data:



Determination of the number of adapters for a given width:

(For an easier calculation, It is assumed that the corner adapter centerline is aligned with the inside of side plate)

W= Inside lips width (mm)

L mini & L maxi = adapters spacing (See dimensions below)

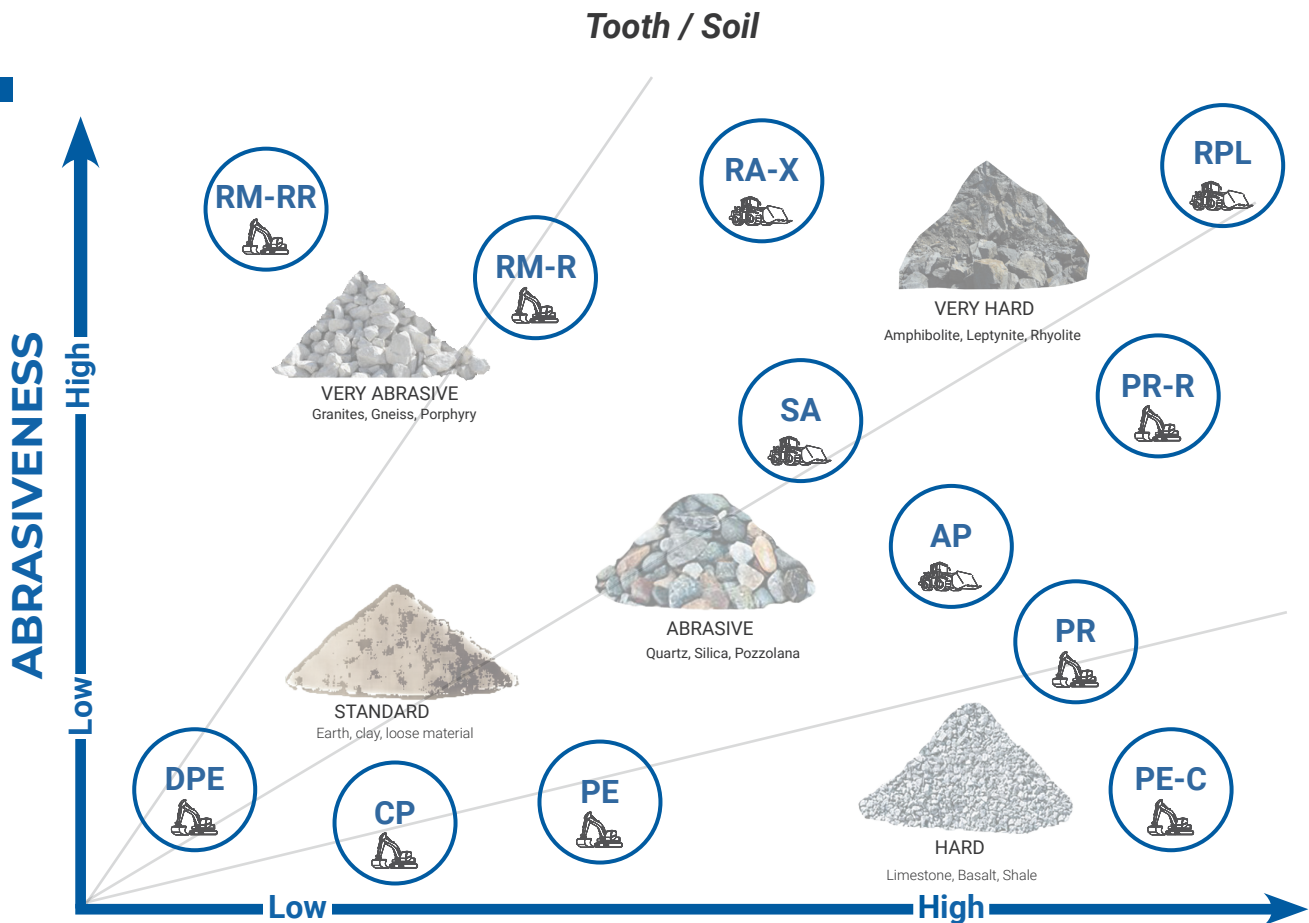
Minimum number of adapters : $\frac{W}{L \text{ maxi}} + 1 =$

Maximum number of adapters: $\frac{W}{L \text{ mini}} + 1 =$

The choice of the number of adapters is made according to the criteria of applications encountered, knowing that we will put for example :

- In an abrasive environment, a maximum of adapters are recommended
- For better penetration in less abrasive environments, install the minimum number of adapters bucket

Excavator				Wheel Loader	
L (mm)		Size	Adapter Width (mm)	L (mm)	
Mini	Maxi			Mini	Maxi
350	490	TKN 10	150	465	620
380	530	TKN 11	170	500	670
440	550	TKN 13	185	505	680
475	665	TKN 15	215	620	825
540	750	TKN 17	245	690	920
630	880	TKN 19	270	-	-



DPE



Twin Pick : Double vector tooth used on bucket corners to protect the sides from wear.

PE



Pick : Long and sharp tooth ensuring an excellent penetration.

PE-C



Pick Short : Short tooth, accurate shape to be used as rock cutting tooth.

RM-R



Resistance Mining : Mining tooth provides a good balance of abrasion resistance and penetration for tough applications

PR



Rock Chisel : Perfect tooth shape for a strong penetration. Excellent compromise wear material/penetration.

PR-R



Rock Chisel + : Enough material for a correct abrasion resistance perfect shape enabling better penetration.

RM-RR



Resistance Mining + : Reinforced mining excavator tooth offering a good ratio between abrasion resistance and penetration in severe applications.

SA



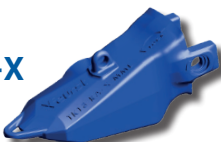
Super Abrasion : Excellent abrasion resistance with penetration-maintaining heel profile.

RPL



Reinforced Abrasion : Loader tooth for highly abrasive use, large heel.

RA-X



Reinforced Abrasion + : Loader tooth for very hard and abrasive use, important heel.

AP



Penetrating Abrasion : Loader tooth offering good wear resistance combined with good penetration.

CP



Coal Penetration : Pointed and penetrating tooth, used to scalp layers of materials in less abrasive environments (such as coal).

**Equipment recommendations between machine weight and its breakout force
(B.O.F= Break Out Force) expressed in Tons (T)**

Taille		TKN 10		TKN 11		TKN 13		TKN 15		TKN 17		TKN 19	
Machine		Standard	HD	Standard	HD	Standard	HD	Standard	HD	Standard	HD	Standard	HD
 Excavator	Max. T Weight	70	50	110	88	180	130	270	188	325	210	450	350
	Max. B.O.F. 	35	29	46	38	60	46-48	79	63	95	73	120	98
 Front Shovel	Max. T Weight	70	50	108	80	180	135	250	190	315	250	460	340
	Max. B.O.F. 	42	35	56.5	46	70	54	88	70	105	82	140	110
 Wheel Loader	Max. T Weight	85	60	133	93	170	133	280	220	300T	270	-	-
	Max. B.O.F. 	59	49	77	63	98	78	133	105	160	130	-	-

1 Tonne = 9.8067 Kn

Recommendation valid for a standard excavator bucket equipped with 5 teeth or equipped with 8 teeth for loaders.

In case of extremely severe use, oversize by one size.

Applications and working conditions must be taken into consideration, consult your FEURST dealer.

Data provided for recommendation purposes only, under no circumstances can FEURST's liability be engaged.

Bucket Selection Based on Application

Standard Bucket : Suitable for digging and loading of soft to medium hard, compact and non-abrasive materials such as earth/rock, sand/gravel, coal, chalk, and non-abrasive ores.

***HD Bucket :** Suitable for digging and loading of mixed earth and rock soils with a high proportion of rock or other abrasive materials.

***XHD Bucket :** Suitable for digging and loading of mixed earth and rock soils with a high proportion of rock and other hard and abrasive materials.

* **HD** = Heavy Duty

* **XHD** = Extrem Heavy Duty

Scan me to access our online configurator



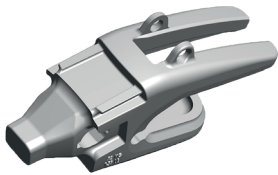
Adapters definition



Standard : Adapter for excavators and loaders. Good tooth continuity shape. Adapter without wear cap for low-abrasion applications.



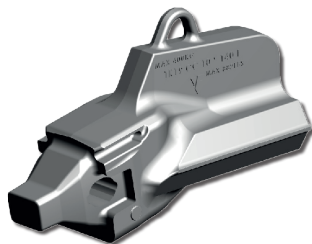
Abrasion A10° : Excavator adapter. A wear cap is fixed to the upper leg. Nose angle is 10°. Excellent abrasion resistance.



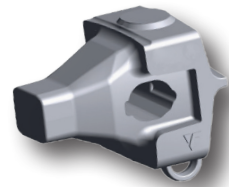
Straddle : Specific adapter for excavators and loaders. It fits into the right and left corners on the bucket, without having to cut the wing to install it.



Abrasion A16° : Loader adapter. A wear cap is fixed to the upper leg. Nose angle is 16°. Excellent abrasion resistance.



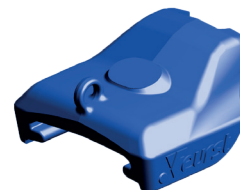
Cast Corner : Specific adaptor for large excavators. This adapter has a blade and wing start, and is fitted into the sides of the bucket. It is most often used in highly abrasive environments.



Weld on Nose : Adaptor for ripper application, and for adapter restoration.



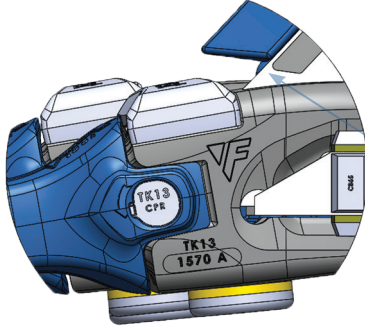
PA et PA CC : Wear cap to fit A10° and A16° on abrasion adapters and Cast Corner (PA CC).



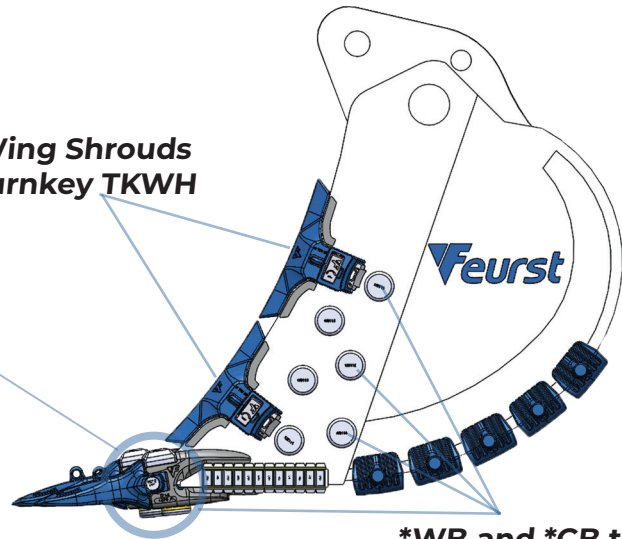
PA WH : Special wear cap for installation on Cast Corner 17 and 19. The cap protects the top of the Cast Corner and the wing start-up at the connection weld.

Equipment to be install on a HD bucket

Wing positioning as close as possible to the wear cap

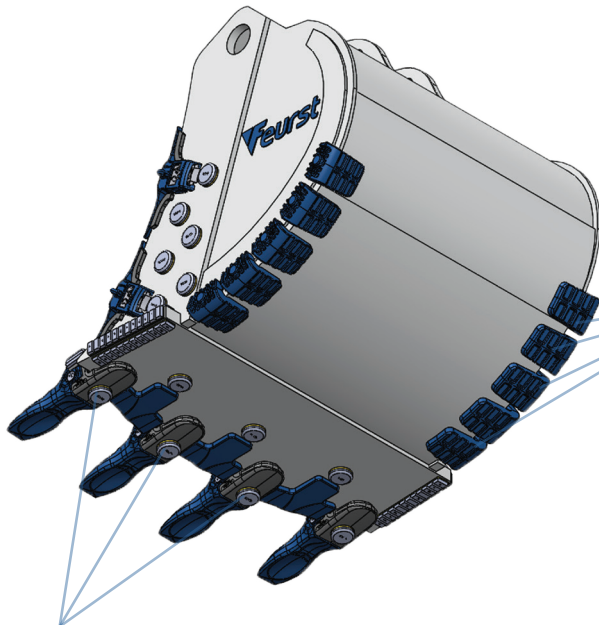


Wing Shrouds
Turnkey TKWH

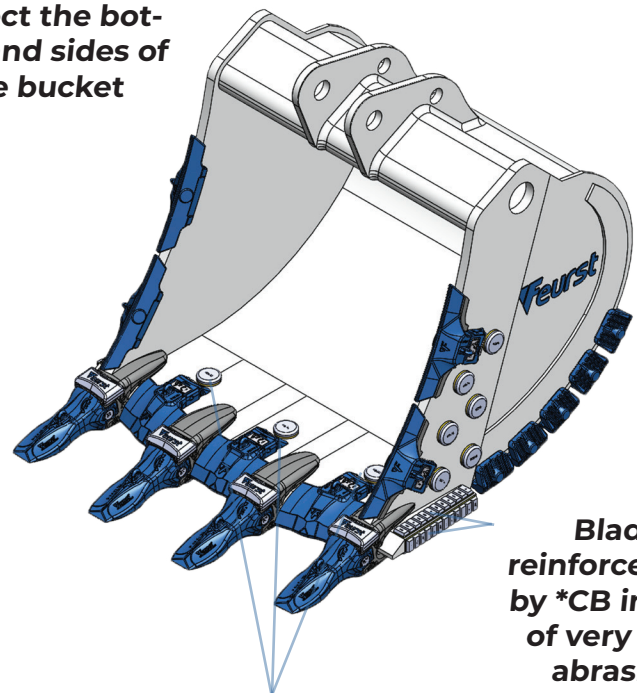


***WB and *CB to weld to protect the sides and bottom of the adapter**

PTG to weld to protect the bottom and sides of the bucket

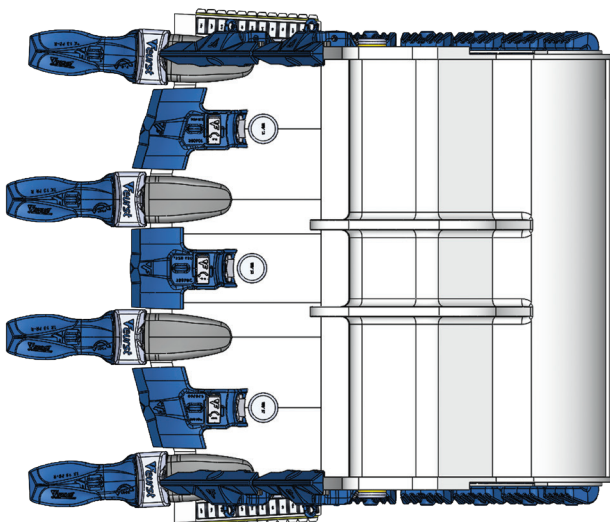


Possibilité de souder des *WB sur les branches inférieures en cas de très forte abrasion



Blade reinforcement by *CB in case of very high abrasion

Possibility to weld *WB behind the lips shrouds to act as a deflector



***WB = Wear Button
*CB = Chocky Bar**

Teeth Dimensions

SIZE	TYPE	PART NO.	WEIGHT [kg]	DIMENSIONS [mm]					
				A	B	C	D	E	F
10	PR	TKN10 PR	20,40	415	168	7	92	113	66
10	PE	TKN10 PE	17,00	440	168	3	18	113	66
10	PR-R	TKN10 PR-R	23,20	445	168	9	100	113	66
10	PE-C	TKN10 PE-C	15,00	370	168	3	25	113	66
10	DPE	TKN10 DPE	18,00	430	168	10	210	113	66
10	EL	TKN10 EL	26,00	420	168	21	250	113	66
10	SA	TKN10 SA	23,00	420	168	21	60	113	66
10	RA-X	TKN10 RA-X	42,25	455	168	10	20	113	66
10	AP	TKN10 AP	33,00	485	168	25	14	113	66
11	PR	TKN11 PR	23,45	442	185	11	53	123	70
11	PE	TKN11 PE	21,20	480	185	4	20	123	70
11	PR-R	TKN11 PR-R	28,95	500	185	6	114	123	70
11	PE-C	TKN11 PE-C	19,85	400	185	4	28	123	70
11	DPE	TKN11 DPE	22,00	450	185	11	232	123	70
11	RM-R	TKN11 RM-R	31,00	450	185	37	109	123	70
11	RM-RR	TKN11 RM-RR	34,00	440	185	45	127	123	70
11	EL	TKN11 EL	34,95	460	185	21	280	123	70
11	SA	TKN11 SA	25,90	460	185	15	60	123	70
11	RA-X	TKN11 RA-X	50,25	488	185	15	20	123	70
11	AP	TKN11 AP	44,00	545	185	31	14	123	70
13	PR	TKN13 PR	30,50	485	198	8	105	139	75
13	PE	TKN13 PE	26,50	500	198	8	20	139	75
13	PR-R	TKN13 PR-R	36,32	524	198	8	113	139	75
13	PE-C	TKN13 PE-C	28,00	435	198	5	32	139	75
13	DPE	TKN13 DPE	32,00	490	198	12	250	139	75
13	RM-R	TKN13 RM-R	38,50	475	198	48	110	139	75
13	RM-RR	TKN13 RM-RR	45,00	477	198	59	113	139	75
13	CP	TKN13 CP	26,00	529	198	28	30	139	75
13	SA	TKN13 SA	41,80	450	198	17	116	139	75
13	RA-X	TKN13 RA-X	65,50	525	198	10	20	139	75
13	AP	TKN13 AP	56,50	529	232	36	30	139	75
15	PR	TKN15 PR	46,50	535	230	9	143	154	85
15	PE	TKN15 PE	40,00	555	230	5	17	154	85
15	PR-R	TKN15 PR-R	55,00	570	230	11	155	154	85
15	PE-C	TKN15 PE-C	40,00	490	230	6	39	154	85
15	RM-R	TKN15 RM-R	60,00	530	230	68	127	154	85
15	RM-RR	TKN15 RM-RR	76,00	560	230	82	113	154	85
15	CP	TKN15 CP	36,00	575	230	8	38	154	85
15	SA	TKN15 SA	57,00	524	230	31	148	154	85
15	RPL	TKN15 RPL	93,50	550	230	28	110	154	85

**In development

Teeth Dimensions

SIZE	TYPE	PART NO.	WEIGHT [kg]	A	B	DIMENSIONS [mm]			
						C	D	E	F
17	PR	TKN17 PR	74,00	600	285	17	144	171	95
17	PE	TKN17 PE	56,50	605	285	27	30	171	95
17	PE-C	TKN17 PE-C	58,00	533	285	7	39	171	95
17	RM-R	TKN17 RM-R	75,00	529	285	54	178	171	95
17	RM-RR	TKN17 RM-RR	97,50	570	285	85	157	171	95
17	RPL	TKN17 RPL	136,50	600	285	50	130	171	95
19	PR	TKN19 PR	93,00	635	328	8	160	197	105
19	PR-R	TKN19 PR-R	99,50	645	328	30	150	197	105
19	PE-C	TKN19 PE-C	80,40	600	328	6	52	197	105
19	RM-R	TKN19 RM-R	95,00	560	328	74	161	197	105
19	TRM-RR	TKN19 RM-RR	113,00	600	328	83	138	197	105

Adapters Dimensions

SIZE	PART NO.	WEIGHT [kg]	Blade Thickness [mm]	A	B	DIMENSIONS [mm]					APPLICATIONS
						C	F	L	α°	β°	
10	TKN10 1550 A10°	31,00	50	52	137	240	67	150	30°	10°	E
10	TKN10 1560 A10°	31,00	60	62	137	240	67	150	30°	10°	E
10	TKN10 1550 STD	28,50	50	51	142	240	67	150	30°	10°	E / C
10	TKN10 1560 STD	27,50	60	62	142	240	67	150	30°	10°	E / C
10	TKN10 1565 STD	28,00	65	67	142	240	67	150	30°	10°	E / C
10	TKN10 1850 A16°	32,00	50	52	160	245	67	150	30°	16°	C
10	TKN10 1860 A16°	32,00	60	64	160	235	67	150	30°	16°	C
10	TKN10 NS	19,41		/	180	20	67	150	/	/	E / C
10	TKN10 PA	3,10	-	168	98	43	-	-	126	-	E / C
11	TKN11 1560 A10°	46,00	60	62	178	275	70	170	30°	10°	E
11	TKN11 1570 A10°	45,50	70	72	178	275	70	170	30°	10°	E
11	TKN11 1560 STD	40,50	60	63	190	280	70	170	30°	10°	E / C
11	TKN11 1565 STD	40,50	65	72	190	283	70	170	30°	10°	E / C
11	TKN11 1570 STD	40,50	70	67	190	180	70	170	30°	10°	E / C
11	TKN11 1860 A16°	47,00	60	62	202	281	70	170	30°	16°	C
11	TKN11 1870 A16°	47,00	70	72	183	281	70	170	30°	16°	C
11	TKN11 NS	26,00	-	/	196	20	70	170	/	/	E / C
11	TKN11 PA	5,50	-	201	11	51	-	-	-	-	E / C

Adapters Dimensions

TAILLE	PART NO.	WEIGHT [kg]	Blade Thickness [mm]	DIMENSIONS [mm]								APPLICATIONS
				A	B	C	D	F	L	δ°	β°	
13	TKN13 1570 A10°	70,50	70	73	193	330	/	77	190	30°	10°	E
13	TKN13 1580 A10°	70,00	80	83	193	330	/	77	190	30°	10°	E
13	TKN13 1590 A10°	70,50	90	93	193	330	/	77	190	30°	10°	E
13	TKN13 1570 STD	59,00	70	75	190	330	/	77	190	30°	10°	E
13	TKN13 1590 STD	59,00	90	95	200	330	/	77	190	30°	10°	E
13	TKN13 1870 A16°	77,00	70	76	245	365	/	77	190	30°	16°	C
13	TKN13 1880 A16°	76,50	80	84	245	365	/	77	190	30°	16°	C
13	TKN13 1880 A16° L	77,30	80	84	245	365	/	77	190	30°	16°	C
13	TKN13 1880 A16° R	77,30	80	84	245	365	/	77	190	30°	16°	C
13	TKN13 1890 A16°	75,00	90	94	245	365	/	77	190	30°	16°	C
13	TKN13 NS	33,12	80	/	200	25	/	77	190	/	/	E / C
13	TKN13 1880 A16° STR	72,00	80	82	243	363	67	77	190	30°	16°	E / C
13	TKN13 1590 A10° STR	62,55	90	92	193	318	67	77	190	30°	10°	E / C
13	TKN13 PA	6,80	-	201	11	51	30	142	-	-	-	E / C
15	TKN15 1590 A10°	102,50	90	93	236	410	/	87	210	30°	10°	E
15	TKN15 15100 A10°	104,00	100	103	236	410	/	87	210	30°	10°	E
15	TKN15 1890 A16°	109,00	90	95	270	430	/	87	210	30°	16°	C
15	TKN15 18100 A16°	104,00	100	104	245	410	/	87	210	30°	16°	C
15	TKN15 NS	46,50	/	/	220	31	/	87	210	/	/	E / C
15	TKN15 15100 A10° STR	91,00	100	102	245	410	77	87	210	30°	10°	E / C
15	TKN15 PA	9,30	/	236	151	62	34	175	/	/	/	E / C
17	TKN17 15100 A10°	146,00	100	104	236	420	/	95	240	30°	10°	E
17	TKN17 15120 A10°	143,00	120	126	236	420	/	95	240	30°	10°	E
17	TKN17 NS	67,00	/	/	260	57	/	95	240	-	0°	E / C
17	TKN17 CC10° 120 R	255,00	120	120	512	190	72	95	240	30°	10°	E
17	TKN17 CC10° 120 L	255,00	120	120	512	190	72	95	240	30°	10°	E
17	TKN17 PA	17,00	/	276	172	74	42	164	-	-	-	E / C
17	TKN17 PA WH70	31,70	/	284	275	100	50	196	-	-	-	E
19	TKN19 15120 A10°	189,00	10	122	300	510	/	107	279	30°	10°	E
19	TKN19 15140 A10°	187,00	140	142	300	510	/	107	279	30°	10°	E
19	TKN19 NS	91,00	/	/	300	67	/	107	279	/	/	E
19	TKN19 CC10° 140 R	385,00	140	142	570	222	92	107	279	30°	10°	E
19	TKN19 CC10° 140 L	385,00	140	142	570	222	92	107	279	30°	10°	E
19	TKN19 PA	27,00	/	345	215	97	55	244	/	/	/	E / C
19	TKN19 PA CC	27,95	/	345	215	97	55	244	/	/	/	E
19	TKN19 PA WH 90	51,90	/	340	325	119	58	244	/	/	/	E

E = Excavator / C = Loader



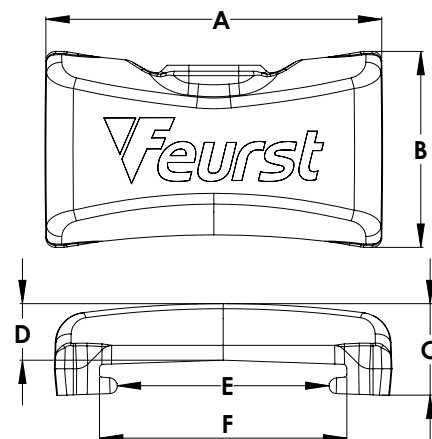
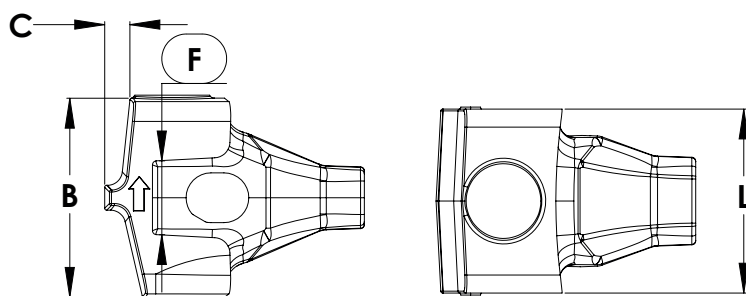
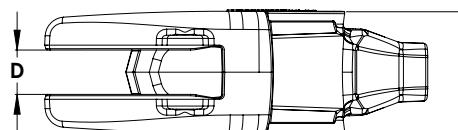
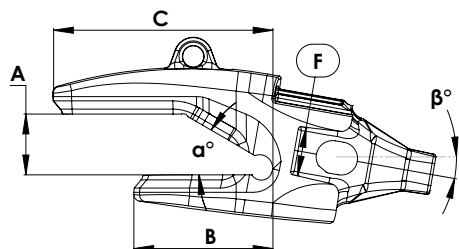
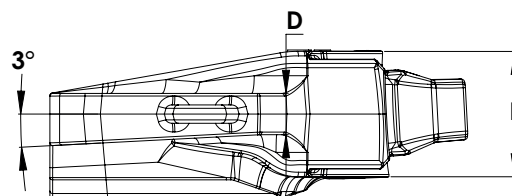
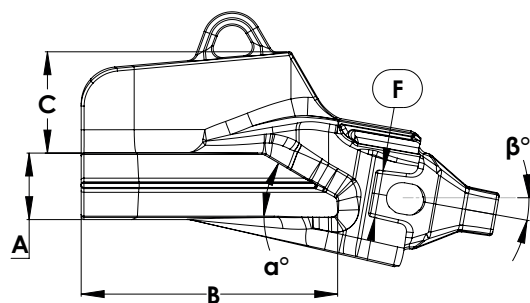
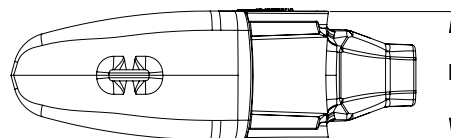
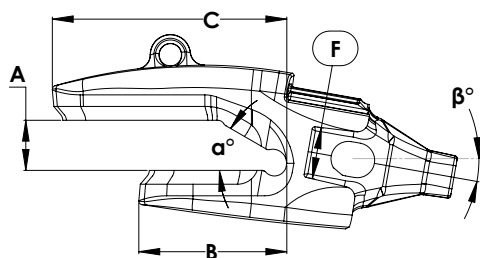
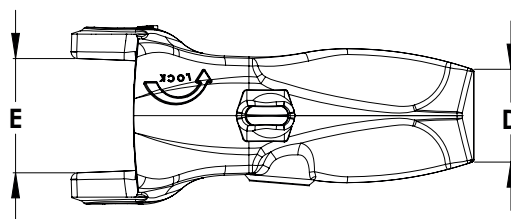
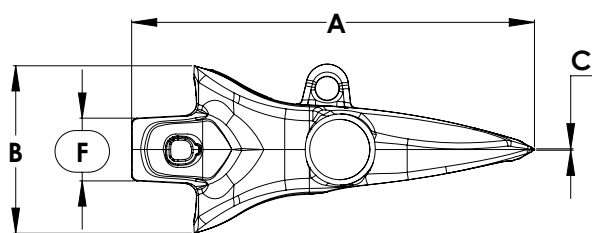
Blade Shrouds Dimensions

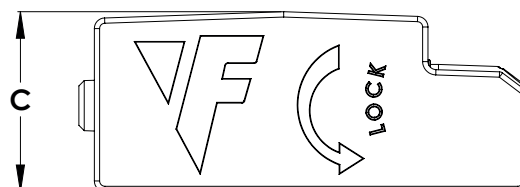
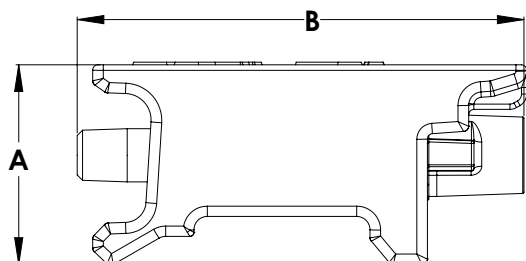
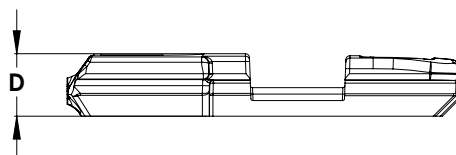
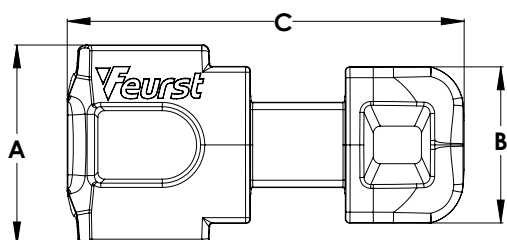
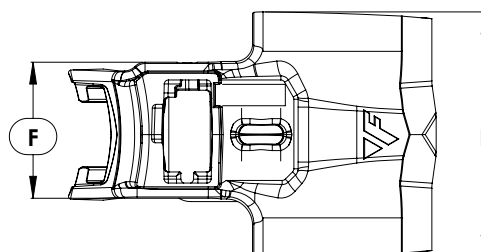
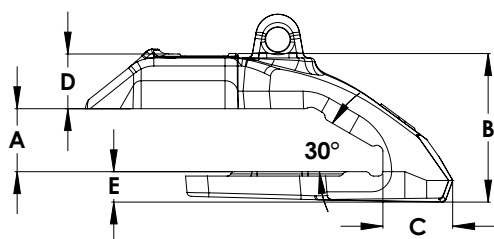
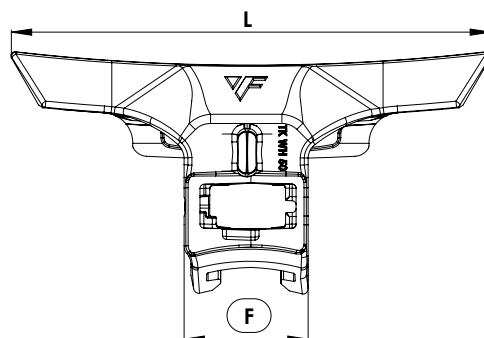
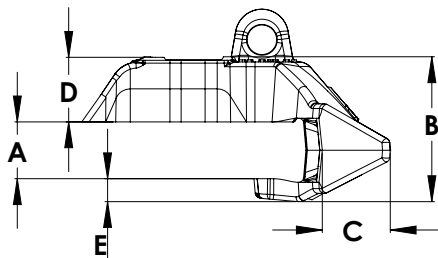
PART N°	WEIGHT [kg]	Blade Thickness [mm]	DIMENSIONS [mm]							APPLICATIONS
			A	B	C	D	E	F	L	
TKSH EXC 240 60 C	30,5	60	60	156	72	63	35	155	240	E
TKSH EXC 240 60 R	30,5	60	60	156	72	63	35	155	240	E
TKSH EXC 240 60 L	30,5	60	60	156	72	63	35	155	240	E
TKSH EXC 250 70 C	35,33	70	70	165	80	63	35	155	250	E
TKSH EXC 250 70 R	35,33	70	70	165	80	63	35	155	250	E
TKSH EXC 250 70 L	35,33	70	70	165	80	63	35	155	250	E
TKSH EXC 280 70 C	38,25	70	70	165	80	63	35	155	280	E
TKSH EXC 280 70 R	37,87	70	70	165	80	63	35	155	280	E
TKSH EXC 280 70 L	38,00	70	70	165	80	63	35	155	280	E
TKSH EXC 320 70 C	42,00	70	70	165	80	63	35	155	320	E
TKSH EXC 320 70 R	42,00	70	70	165	80	63	35	155	320	E
TKSH EXC 320 70 L	42,00	70	70	165	80	63	35	155	320	E
TKSH EXC 370 70 C	48,00	70	70	165	80	63	35	155	370	E
TKSH EXC 370 70 R	48,00	70	70	165	80	63	35	155	370	E
TKSH EXC 370 70 L	48,00	70	70	165	80	63	35	155	370	E
TKSH LOAD 370 70 C	81,00	70	70	220	155	63	87	155	370	C
TKSH LOAD 370 70 R	82,25	70	70	220	155	63	87	155	370	C
TKSH LOAD 370 70 L	82,25	70	70	220	155	63	87	155	370	C
TKSH LOAD 370 76 C	81,00	80	76	220	155	63	83	155	370	C
TKSH LOAD 370 76 R	82,00	80	76	220	155	63	83	155	370	C
TKSH LOAD 370 76 L	82,00	80	76	220	155	63	83	155	370	C
TKSH EXC 245 90 C	49,50	90	90	202	110	63	47	155	245	E
TKSH EXC 245 90 R	51,00	90	90	200	110	63	50	155	245	E
TKSH EXC 245 90 L	51,00	90	90	200	110	63	50	155	245	E
TKSH EXC 280 90 C	54,50	90	90	202	110	63	47	155	280	E
TKSH EXC 280 90 R	56,25	90	90	200	110	63	50	155	280	E
TKSH EXC 280 90 L	55,00	90	90	200	110	63	50	155	280	E
TKSH EXC 320 90 C	60,00	90	90	202	110	63	47	155	320	E
TKSH EXC 320 90 R	61,75	90	90	200	110	63	50	155	320	E
TKSH EXC 320 90 L	61,25	90	90	200	110	63	50	155	320	E
TKSH EXC 360 90 C	65,75	90	90	202	110	63	47	155	360	E
TKSH EXC 360 90 R	67,50	90	90	200	110	63	50	155	360	E
TKSH EXC 360 90 L	67,50	90	90	200	110	63	50	155	360	E
TKSH LOAD 370 90 C	106,00	90	90	250	180	63	100	155	370	C
TKSH LOAD 370 90 R	109,00	90	90	250	180	63	100	155	370	C
TKSH LOAD 370 90 L	109,00	90	90	250	180	63	100	155	370	C
TKSH LOAD 370 100 C	102,00	100	100	250	180	63	86	155	370	C
TKSH LOAD 370 100 R	105,00	100	100	250	180	63	86	155	370	C
TKSH LOAD 370 100 L	105,00	100	100	250	180	63	86	155	370	C
TKSH EXC 345 100 C	109,00	100	100	235	152	80	57	220	345	E
TKSH EXC 345 100 R	111,00	100	100	235	152	80	57	220	345	E
TKSH EXC 345 100 L	111,00	100	100	235	152	80	57	220	345	E
TKSH EXC 380 120 C	122,00	120	120	255	152	80	57	220	380	E
TKSH EXC 380 120 R	123,00	120	120	255	152	80	57	220	380	E
TKSH EXC 380 120 L	123,00	120	120	255	152	80	57	220	380	E
TKSH EXC 420 140 C	148,00	140	140	275	152	80	57	220	420	E
TKSH EXC 420 140 R	146,00	140	140	275	152	80	57	220	420	E
TKSH EXC 420 140 L	146,00	140	140	275	152	80	57	220	420	E

E = Excavator / C = Loader

Wing Shrouds Dimensions

PART N°	WEIGHT [kg]	Wing Thickness [mm]	DIMENSIONS [mm]							APPLICATIONS
			A	B	C	D	E	F	L	
TKWH 30	21,00	30	30	116	52	63	20	155	570	E / C
TKWH 50	24,30	55	55	132	66	63	20	155	590	E / C
TKWH 70	52,50	70	70	180	80	80	25	220	545	E / C
TKWH 90	81,04	90	90	210	100	80	35	220	610	E / C
TKSH 60-90 AD	2,10	-	110	87	207	36	-	-	-	E / C
TKSH 60-90 CL	1.4	-	56	109	51	-	-	-	-	E / C
TKSH 100-140 AD	5,00	-	147	116	285	44	-	-	-	E / C
TKSH 100-140 CL	4,39	-	75	164	66	-	-	-	-	E / C

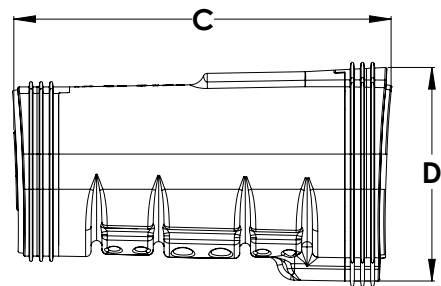
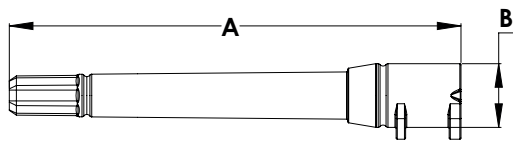




Locking Devices Dimensions

PART N°	WEIGHT [g]	DIMENSIONS [mm]				APPLICATIONS
		A	B	C	D	
TKN10 CL COMPLET	742,00	156	25	110	64	E / C
TKN11 CL COMPLET	911,00	175	26	122	70	E / C
TKN13 CL COMPLET	1260,00	191	27	137	83	E / C
TKN15 CL COMPLET	1760,00	215	32	153	87	E / C
TKN17 CL COMPLET	2570,00	246	37	175	98	E / C
TKN19 CL COMPLET	4290,00	286	44	195	112	E / C

E = Excavator / C = Loader



NOTES



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