



**E - BIKE
CATALOG
2025**





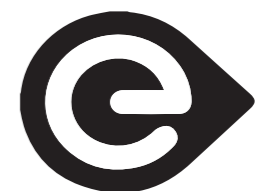
/// FSA

E-BIKE

E-bikes have become a popular options for all types of cycling.

FSA is ready with a range of drivetrain components for most E-bike motor systems (Bosch, Brose, Yamaha, Fazua, Nidec B900, SMN, Polini, SACHS, DP, Maxon, TQ, OLI and Askoll), including crank arms, sprockets, spiders, chainrings and chain guards. As with all FSA components, our E-bike parts are designed with the latest technologies and made with the best materials for a lifetime of trouble-free riding enjoyment.

Full Speed Ahead IS AMONG THE TOP BRANDS OF E-BIKE WORLD!



FSA

E-RACING

The 2012 XC Olympic bronze medallist, Marco Aurelio Fontana, has chosen Full Speed Ahead as his official supplier to support his new adventure in E-bike racing. Marco has been prominent in the E-bike World Series as well as other circuits around the world. Together with FSA, his goal is to become an ambassador for a world in constant growth; the world of E-bike.



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▶ **KFX** 
CK-9011/IS


- FEATURES**
- Modular super light weight aluminum crank, Crank bolt with QR-32
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Anodized black, Laser graphics, Color graphics, CNC machining
- WEIGHT**
- 350 grams (pair)



▶ **CK-702/IS**  

- FEATURES**
- Hollow carbon, Crank bolt with QR-32
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- UD Finish, Color graphics
- WEIGHT**
- 311 grams (pair)



▶ **CK-745/IS** 


- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 477 grams (pair)



▶ **CK-220/IS** 

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



▶ **CK-762/IS** 
CK-762NC/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



▶ **CK-762/IS/wider** 
CK-762NC/IS/wider

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



▶ **CK-220/IS/wider** 

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



▶ **CK-320/IS** 

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 505 grams (pair)



➤ **FSA 1x Alloy Spider**

W0204
W0205
W0206

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

Part number	W0204	W0205	W0206
1x Chainline	50mm	52mm	55mm



➤ **FSA Alloy Chainguard**

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES

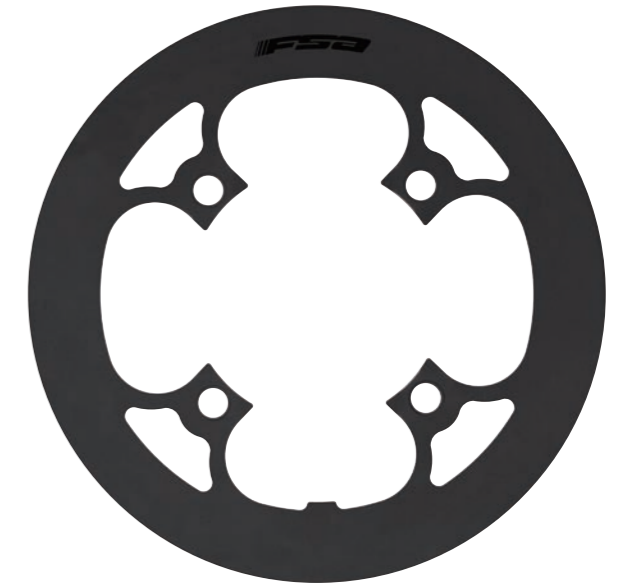
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



➤ **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	Front Back	Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	Front Back	Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

➤ **FSA Alloy Chainguard**

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

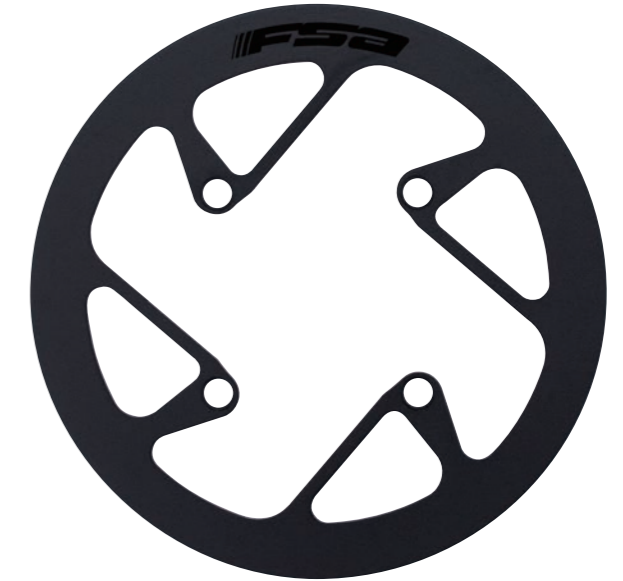
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



➤ **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring

ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

> **FSA 1x Steel Spider** Steel

W0146
W0147

FEATURES

- Forged steel spider

SPECIFICATIONS

- BCD 104mm

FINISH

- ED black

WEIGHT

- 115 grams (W0146), 115 grams (W0147)

Part number	W0146	W0147
1x Chainline	52mm	55mm



> **FSA 1x Alloy / Steel MegaTooth Chaining**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T





FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T



› FSA Direct Mount Steel MegaTooth Chainring

- SPECIFICATIONS**
- 38T, 36T, 34T, **CL - 55mm**
- FINISH**
- ED black







FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB480 - 38T	WB605 - 38T
	WB349E - 36T	WB493 - 36T
	WB478 - 34T	WB604 - 34T

› FSA Direct Mount Steel MegaTooth Chainring

- SPECIFICATIONS**
- 42T, **CL - 52mm**
- FINISH**
- ED black







FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB659A - 42T	WB660 - 42T

› FSA Direct Mount Steel MegaTooth Chainring+Chainguard

- 11S SH12
 W1169 / WB629 (38T) W1169 / WB632 (38T)
 W1170 / WB628 (36T) W1170 / WB631 (36T)
 W1171 / WB627 (34T) W1171 / WB630 (34T)

- SPECIFICATIONS**
- BCD 104mm - 38T, 36T, 34T, **CL - 55mm**
- FINISH**
- Bead blasted anodized black







FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	W1169 / WB629 (38T)	W1169 / WB632 (38T)
	W1170 / WB628 (36T)	W1170 / WB631 (36T)
	W1171 / WB627 (34T)	W1171 / WB630 (34T)

› FSA Direct Mount Steel MegaTooth Chainring+Chainguard

- 11S SH12
 W1174 / WB659A (42T) W1174 / WB660 (42T)

- SPECIFICATIONS**
- 42T, **CL - 52mm**
- FINISH**
- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	W1174 / WB659A (42T)	W1174 / WB660 (42T)

➤ **KFX**

CK-9011/IS/SX

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



➤ **CK-703/IS/SX**

FEATURES

- Hollow Alloy, Crank bolt with QR-32

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Color graphics

WEIGHT

- 364grams (pair)



➤ **CK-745/IS/SX**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 477 grams (pair)



➤ **CK-220/IS/SX**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



➤ **CK-220/IS/wider/SX**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



➤ **FSA 1x Alloy Spider**

W0151
W0152
W0172

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 50.5grams (W0151), 55grams (W0152), 57grams (W0172)

Part number	W0151	W0152	W0172
1x Chainline	50mm	52mm	55mm



› FSA Direct Mount Steel MegaTooth Chainring

SPECIFICATIONS

- 38T, 36T, 34T, **CL - 52mm**

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB480 - 38T	WB605 - 38T
	WB349E - 36T	WB493 - 36T
	WB478 - 34T	WB604 - 34T

› FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T	WB614 - 32T
	WB381B - 34T	WB615 - 34T
	WB382B - 36T	WB616 - 36T
	WB383B - 38T	WB617 - 38T
	WB054A - 42T	WB618 - 42T
	WB416A - 44T	WB620 - 44T
	WB315B - 46T	WB619 - 46T
	WB409B - 48T	WB621 - 48T

› FSA Direct Mount Steel MegaTooth Chainring+Chainguard

11S

W1169 / WB629 (38T)

W1170 / WB628 (36T)

W1171 / WB627 (34T)

SH12

W1169 / WB632 (38T)

W1170 / WB631 (36T)

W1171 / WB630 (34T)

11S

W1174 / WB659A (42T)

SH12

W1174 / WB660 (42T)

SPECIFICATIONS

- BCD 104mm - 38T, 36T, 34T, **CL - 52mm**

FINISH

- Bead blasted anodized black



SPECIFICATIONS

- BCD 104mm - 42T, **CL - 50mm**

FINISH

- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	W1169 / WB629 (38T)	W1169 / WB632 (38T)
	W1170 / WB628 (36T)	W1170 / WB631 (36T)
	W1171 / WB627 (34T)	W1171 / WB630 (34T)
	W1174 / WB659A (42T)	W1174 / WB660 (42T)

Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T	WB494 - 34T
	WB468 - 36T	WB495 - 36T
	WB488 - 38T	WB496 - 38T
	WB466 - 42T	WB497 - 42T
	WB464 - 44T	WB498 - 44T

› **FSA Alloy Chainguard**

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES

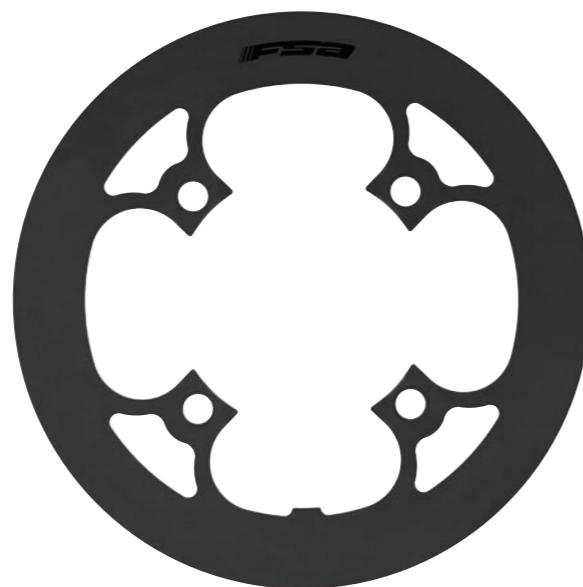
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



› **FSA Alloy Chainguard**

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

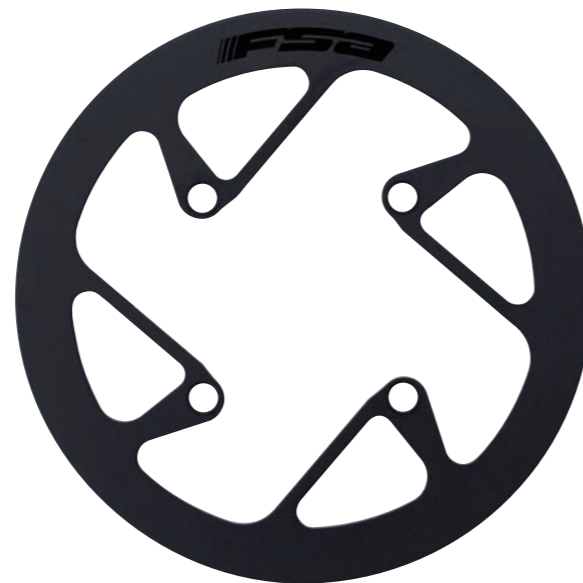
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



› **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring



ML053(bolt)+ML551(nut)+MW058K(3.5mm)
1x spider + Chainring + Chainguard

› **KFX**

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



1.Sticker



2.Bezel



3.Cover



› **CK-702/IS**

FEATURES

- Hollow carbon, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



1.Sticker



2.Bezel



3.Cover



› **CK-762/IS**
CK-762NC/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



1.Sticker



2.Bezel

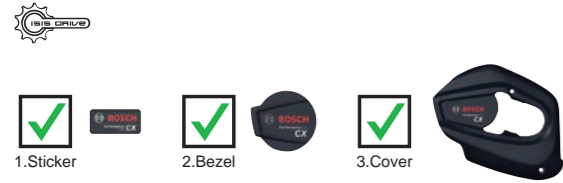


3.Cover



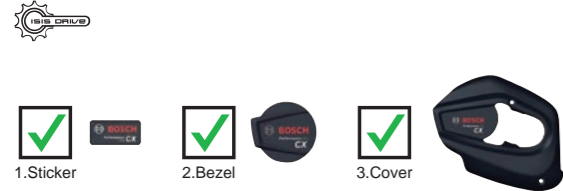
> **CK-762/IS/wider**
CK-762NC/IS/wider

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



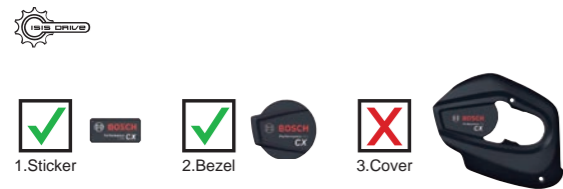
> **CK-745/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 477 grams (pair)



> **CK-220/IS**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> **CK-220/IS/wider**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> **CK-320/IS**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 505 grams (pair)



> **FSA 1x Alloy Spider for SMN / Sram 12S**

W0151
W0152
W0172

- | | |
|------------------------|---|
| FEATURES | FINISH |
| • Forged AL6061 spider | • Bead blasted anodized black |
| SPECIFICATIONS | WEIGHT |
| • BCD 104mm | • 50.5grams (W0151), 55grams (W0152), 57grams (W0172) |

Part number	W0151	W0152	W0172
1x Chainline	50mm	52mm	55mm



> FSA 1x / 2x Alloy Spider

W0134 (1x)
W0138 (1x / 2x)
W0140 (1x / 2x)

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 61.5grams (W0134), 65.5grams (W0138), 67.5grams (W0140)

Part number	W0134	W0138	W0140
1x Chainline	50mm	52mm	55mm
2x Chainline	-	51mm	53mm



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB337A - 32T WB452A - 34T WB339A - 36T WB453A - 38T WB454A - 42T WB450A - 44T WB455A - 46T WB451A - 48T	WB606 - 32T WB607 - 34T WB608 - 36T WB609 - 38T WB610 - 42T WB611 - 44T WB612 - 46T WB613 - 48T

Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB485 - 34T WB469 - 36T WB486 - 38T WB467 - 42T WB465 - 44T	WB499 - 34T WB600 - 36T WB601 - 38T WB602 - 42T WB603 - 44T

> FSA Direct Mount Steel MegaTooth Chainring





SPECIFICATIONS

- 38T, 36T, 34T, CL - 52mm

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB480 - 38T WB349E - 36T WB478 - 34T	WB605 - 38T WB493 - 36T WB604 - 34T

> FSA Direct Mount Steel MegaTooth Chainring+Chainguard

11S

W1169 / WB629 (38T)

W1170 / WB628 (36T)

W1171 / WB627 (34T)

SH12

W1169 / WB632 (38T)

W1170 / WB631 (36T)

W1171 / WB630 (34T)

11S

W1174 / WB659A (42T)

SH12

W1174 / WB660 (42T)

SPECIFICATIONS

- BCD 104mm - 38T, 36T, 34T, CL - 52mm

FINISH

- Bead blasted anodized black







SPECIFICATIONS

- BCD 104mm - 42T, CL - 50mm

FINISH

- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	W1169 / WB629 (38T) W1170 / WB628 (36T) W1171 / WB627 (34T) W1174 / WB659A (42T)	W1169 / WB632 (38T) W1170 / WB631 (36T) W1171 / WB630 (34T) W1174 / WB660 (42T)

> **FSA Alloy Chainguard**

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



> **FSA 1x Steel Spider** Steel

W0146
W0147

FEATURES

- Forged steel spider

SPECIFICATIONS

- BCD 104mm

FINISH

- ED black

WEIGHT

- 115 grams (W0146), 115 grams (W0147)

Part number	W0146	W0147
1x Chainline	50mm	52mm



CL 50mm



W0146

CL 52mm



W0147

> **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> **FSA 2x Alloy Chainring**

48/32 - WA351+WB104
50/34 - WA196+WB099

FEATURES

- With steel chainring bolts (ML163+ML085)
- 10-11 speed compatible

SPECIFICATIONS

- BCD 104mm, CL - 51mm (W0138), CL - 53mm (W0140)

FINISH

- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back 3.5mm	 Front Back 2.8mm
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back 3.5mm	 Front Back 2.8mm
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

➤ **FSA Alloy Chainguard**

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES

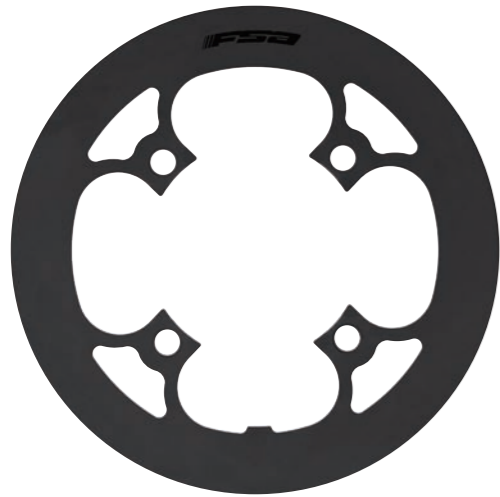
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



➤ **FSA Alloy Chainguard**

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

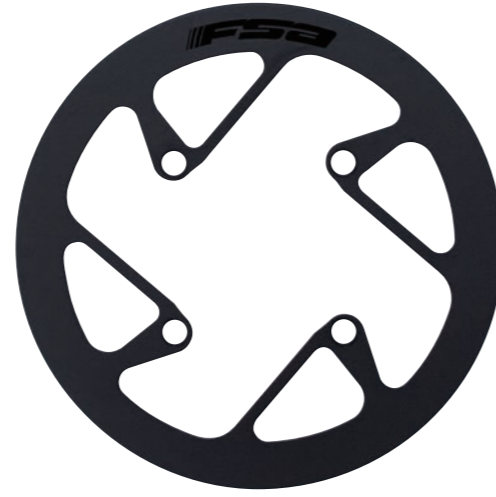
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



➤ **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring

ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

➤ **Chain Device**

EL357

FEATURES

- E-MTB optimized fully adjustable chain guide for Bosch Gen 4 motor
- 3-way adjustability for smooth and silent operation
- Nylon guide with Nylon and AL backing plate for light weight

SPECIFICATIONS

- Bosch Gen 4 motor compatible
- CL. 50mm, 52mm
- 32T-42T Tooth capacity

WEIGHT

- 35.6 grams



➤ **Chain Device 90°**

EL398

FEATURES

- E-MTB optimized fully adjustable chain guide for Bosch Gen 4 motor
- 3-way adjustability for smooth and silent operation
- Nylon guide with Nylon and AL backing plate for light weight

SPECIFICATIONS

- Bosch Gen 4 motor compatible
- CL. 50mm, 52mm
- 32T-42T Tooth capacity

WEIGHT

- 35.6 grams



➤ **CK-702/Gen3**

FEATURES

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, Bosch Spindle Interface BNI

FINISH

- UD Finish, Color graphics

WEIGHT

- 318 grams (pair)



➤ **CK-762/Gen3/wider**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, Bosch Spindle Interface BNI

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 450 grams (pair)



➤ **CK-762/Gen3**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, Bosch Spindle Interface BNI

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 450 grams (pair)



➤ **CK-400/Gen3**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 155mm, 165mm, Bosch Spindle Interface BNI

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 427 grams (pair)



> **CK-200/Gen3**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 152mm, 165mm, 170mm, 172.5mm, 175mm, Bosch Spindle Interface BNI
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 557.2 grams (pair)



> **CK-602/Gen3**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 172.5mm, 175mm, Bosch Spindle Interface BNI
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 444 grams (pair)



> **CK-220/Gen3**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155mm, 160mm, 165mm, 170mm, 172.5mm, 175mm, Bosch Spindle Interface BNI
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> **CK-320/Gen3**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155mm, 160mm, 165mm, 170mm, 172.5mm, 175mm, Bosch Spindle Interface BNI
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 505 grams (pair)



> **FSA 1x Alloy Spider**

- W0120**
W0121
- FEATURES**
- Bosch Gen 3 motor
 - Forged AL6061 spider
- SPECIFICATIONS**
- BCD 104mm
- FINISH**
- Bead blasted anodized black
- WEIGHT**
- 54grams (W0120), 56grams (W0121)

Part number	W0120	W0121
1x Chainline	50mm	52mm



> **FSA 1x Steel Spider** Steel

- W0161**
W0162
- FEATURES**
- Bosch Gen 3 motor
 - Steel spider
- SPECIFICATIONS**
- BCD 104mm
- FINISH**
- ED black
- WEIGHT**
- 111grams (W0161), 113.6grams (W0162)




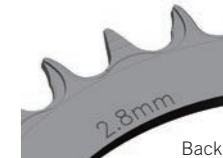
Part number	W0161	W0162
1x Chainline	50mm	52mm



> **FSA Direct Mount Steel Chaining MegaTooth**

- SPECIFICATIONS**
- 42T, CL - 50mm
- FINISH**
- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back 3.5mm	 Front  Back 2.8mm
Item Number	WB671 - 42T	WB672 - 42T

➤ **FSA 1x Steel Chainring w/o MegaTooth (for 8S & 9S)**

WA542 - 48T WA023 - 40T
WA527 - 46T WB531 - 38T
WA546 - 44T WB545 - 36T
WA516 - 42T

FEATURES
• Stamp Steel + Heat Treated

SPECIFICATIONS
• BCD 104mm - 48T, 46T, 44T, 42T, 40T, 38T, 36T

FINISH
• ED black



➤ **FSA Alloy Chainguard**

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES
• With MW058K:3.5mm chainring spacer

SPECIFICATIONS
• BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH
• Bead blasted anodized black



➤ **FSA Direct Mount Steel Chainring w/o MegaTooth (for 8S & 9S)**

CL50mm CL52mm
WB463 - 44T WB462 - 44T
WB386 - 40T WB430 - 40T
WB385 - 38T WB429 - 38T
WB438 - 32T WB437 - 32T

SPECIFICATIONS
• 44T, 40T, 38T, 32T

FINISH
• ED black



➤ **FSA Direct Mount Steel with chainguard**

CL50mm CL52mm
WB386 w/ W1147 CG - 40T WB430 w/ W1147 CG - 40T
WB385 w/ W1144 CG - 38T WB429 w/ W1144 CG - 38T
WB438 w/ W1148 CG - 32T WB437 w/ W1148 CG - 32T

SPECIFICATIONS
• 40T, 38T, 32T

FINISH
• ED black



➤ **Chainring Steel Bolt / Nut**

FEATURES
• Forged chromoly

SPECIFICATIONS
• M8x0.75P / 5mm hexagonal

FINISH
• ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring



ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

➤ **CK-746/IS**

FEATURES
• Forged AL6061/T6 crank arms

SPECIFICATIONS
• 165mm, 170mm, 175mm, BB-ISIS Drive

FINISH
• Bead blasted anodized black, Laser graphics

WEIGHT
• 520 grams (pair)



➤ **FSA 1x / 2x Spider**

W0108
W0001

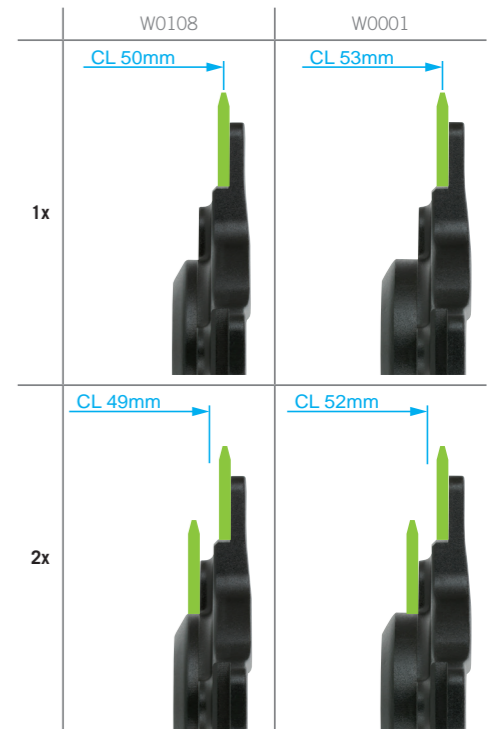
FEATURES
• Forged AL6061 spider

SPECIFICATIONS
• BCD 104/64mm

FINISH
• Bead blasted anodized black

WEIGHT
• 101 grams

Part number	W0108	W0001
1x Chainline	50mm	53mm
2x Chainline	49mm	52mm



➤ **FSA 1x Spider for Belt Drive**

W0063

FEATURES
• Forged AL6061 spider

SPECIFICATIONS
• BCD 104mm

FINISH
• Bead blasted anodized black

WEIGHT
• 78 grams



Part number	W0063
1x Chainline	46.6mm



> **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB380B - 32T	WB614 - 32T
	WB381B - 34T	WB615 - 34T
	WB382B - 36T	WB616 - 36T
	WB383B - 38T	WB617 - 38T
	WB054A - 42T	WB618 - 42T
	WB416A - 44T	WB620 - 44T
	WB315B - 46T	WB619 - 46T
	WB409B - 48T	WB621 - 48T

Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB487 - 34T	WB494 - 34T
	WB468 - 36T	WB495 - 36T
	WB488 - 38T	WB496 - 38T
	WB466 - 42T	WB497 - 42T
	WB464 - 44T	WB498 - 44T

> **CK-702/IS** 

FEATURES

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive


FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



> **CK-762/IS**
CK-762NC/IS 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive


FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-746-1/IS** 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH


- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 495 grams (pair)

Note: These crank arms are specially designed for a narrow Q-Factor of 173mm, please check if frame spec is adequate for the crank arms before spec and use.



> **CK-746-2/IS** 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 477 grams (pair)



➤ **CK-220/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 454 grams (pair)



➤ **FSA 1x Spider**

W0063

W0108

W0001

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm (W0063)
- BCD 104/64mm (W0108, W0001)

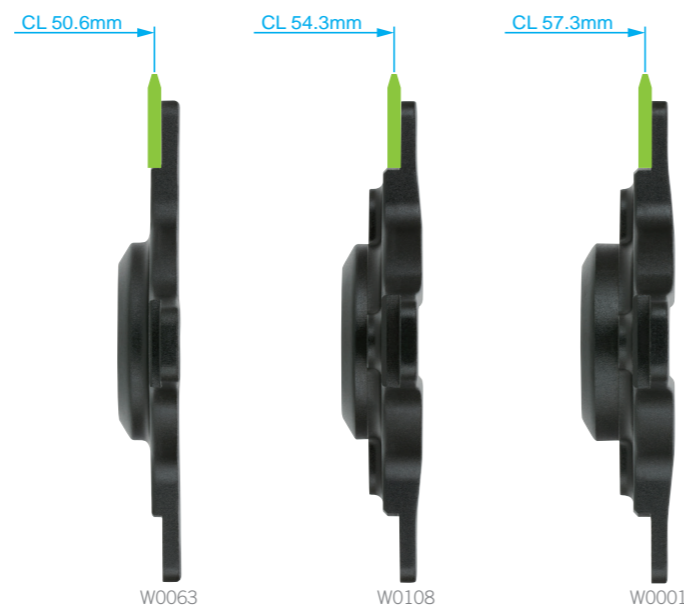
FINISH

- Bead blasted anodized black

WEIGHT

- 78 grams (W0063)

Part number	W0063	W0108	W0001
1x Chainline	50.6mm	54.3mm	57.3mm



➤ **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



➤ **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> **KFX** 
CK-9011/IS

- FEATURES**
- Modular super light weight aluminum crank, Crank bolt with QR-32
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Anodized black, Laser graphics, Color graphics, CNC machining
- WEIGHT**
- 350 grams (pair)



> **CK-762/IS/wider**
CK-762NC/IS/wider

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 450 grams (pair)



> **CK-702/IS**

- FEATURES**
- Hollow carbon
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- UD Finish, Color graphics
- WEIGHT**
- 311 grams (pair)



> **CK-745/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



> **CK-762/IS**
CK-762NC/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



> **CK-400/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 155mm, 165mm, BB - ISIS Drive
- FINISH**
- Anodized black, Laser graphics
- WEIGHT**
- 427 grams (pair)



> **CK-758/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 155mm, 165mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-220/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 454 grams (pair)



> **CK-320/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 503 grams (pair)



> **FSA 1x Spider**

W0170

W0171

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

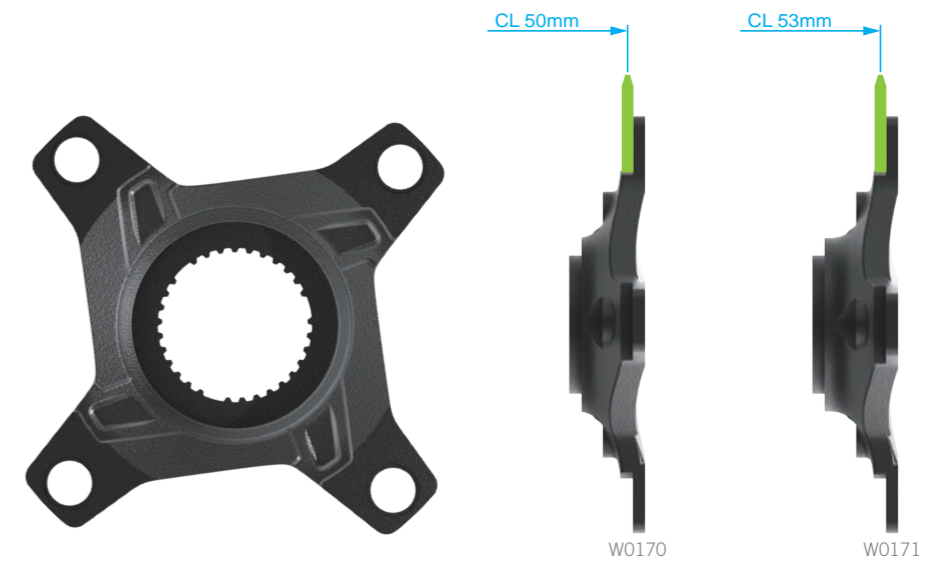
FINISH

- Bead blasted anodized black

WEIGHT

- 75.6grams (W0170), 77grams (W0171)

Part number	W0170	W0171
1x Chainline	50mm	53mm



> **FSA Alloy Chainguard**

W1086 (44T-46T)

W1036 (40T-42T)

W1145 (36T-38T)

FEATURES

- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



> **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



▶ **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



FSA Tooth Profile	MegaTooth A 3.5mm	MegaTooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T	WB614 - 32T
	WB381B - 34T	WB615 - 34T
	WB382B - 36T	WB616 - 36T
	WB383B - 38T	WB617 - 38T
	WB054A - 42T	WB618 - 42T
	WB416A - 44T	WB620 - 44T
	WB315B - 46T	WB619 - 46T
	WB409B - 48T	WB621 - 48T

Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	MegaTooth A 3.5mm	MegaTooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T	WB494 - 34T
	WB468 - 36T	WB495 - 36T
	WB488 - 38T	WB496 - 38T
	WB466 - 42T	WB497 - 42T
	WB464 - 44T	WB498 - 44T

▶ **KFX**

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



▶ **CK-702/IS**

FEATURES

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



▶ **CK-762/IS**
CK-762NC/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



▶ **CK-762/IS/wider**
CK-762NC/IS/wider

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-745/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-746-2/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-400/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 155mm, 165mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics

WEIGHT

- 427 grams (pair)



> **CK-758/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 155mm, 165mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-220/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 454 grams (pair)



> **CK-320/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 503 grams (pair)



► Spider 1x / 2x in one for PW-X2

W0023
W0019

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104/64mm

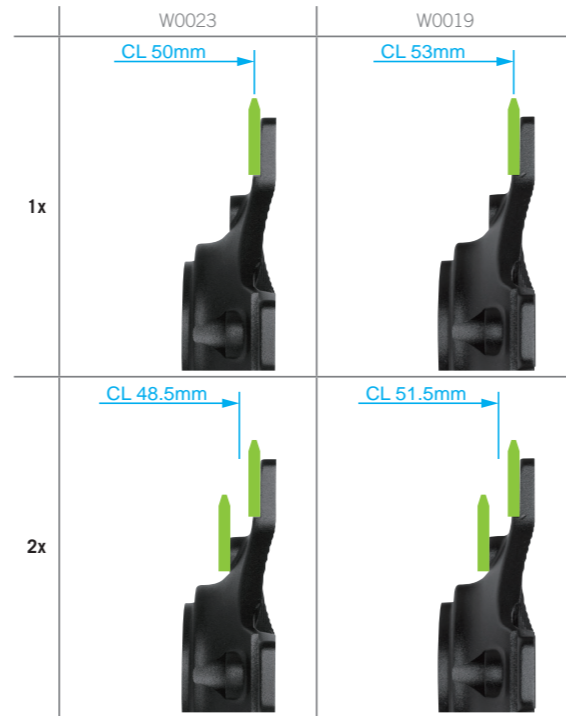
FINISH

- Bead blasted anodized black

WEIGHT

- 70grams (W0023), 71grams (W0019)

Part number	W0023	W0019
1x Chainline	50mm	53mm
2x Chainline	48.5mm	51.5mm



► FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



► FSA Alloy Chainguard

W1086 (44T-46T)

W1036 (40T-42T)

W1145 (36T-38T)

FEATURES

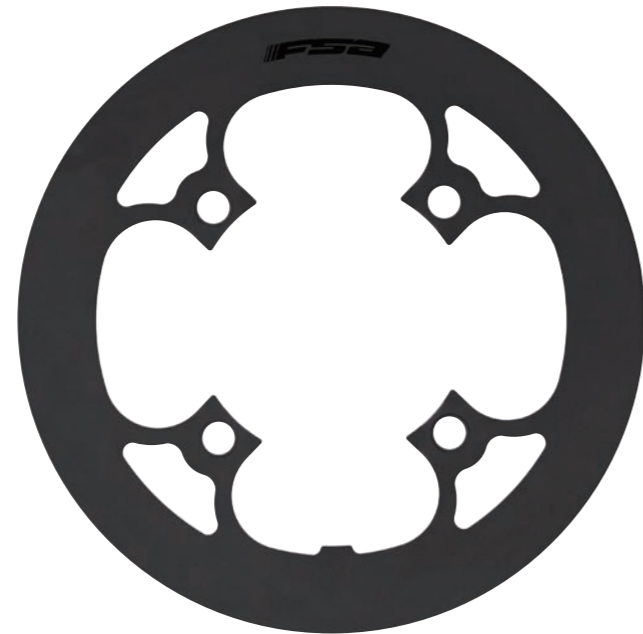
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



► Chainring Steel Bolt / Nut

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH





- ED black







ML138(bolt)+ML080(nut)
1x spider + Chainring



ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard


FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back	 Front  Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back	 Front  Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

➤ **CK-758/JIS** 

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 155mm, 165mm, BB - JIS spindle
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



➤ **CK-746-2/JIS** 

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - JIS spindle
- FINISH**
- Anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



➤ **CK-220/JIS** 

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155mm, 160mm, 165mm, 170mm, 175mm, BB - JIS spindle
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 460 grams (pair)



➤ **AL-8/JIS** 

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - JIS spindle
- FINISH**
- Painted blasted black, Printed graphics
- WEIGHT**
- 481 grams (pair)

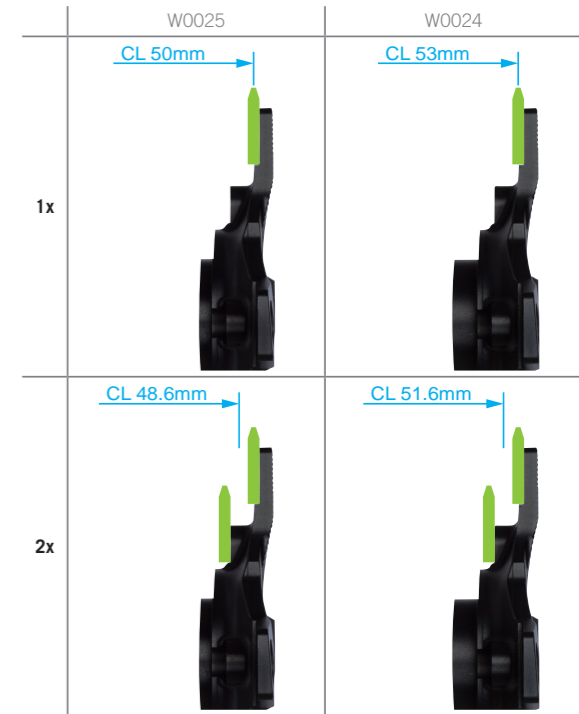


➤ **Spider 1x / 2x in one for PW / TE / CE**

W0025
W0024

- FEATURES**
- Forged AL6061 spider
- SPECIFICATIONS**
- BCD 104/64mm
- FINISH**
- Bead blasted anodized black
- WEIGHT**
- 70grams (W0025), 73grams (W0024)

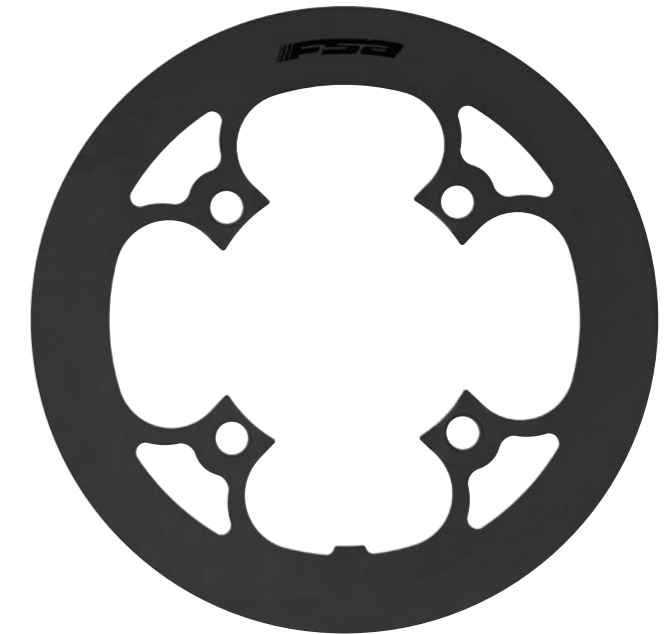
Part number	W0025	W0024
1x Chainline	50mm	53mm
2x Chainline	48.6mm	51.6mm



➤ **FSA Alloy Chainguard**

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

- FEATURES**
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551
- SPECIFICATIONS**
- BCD 104mm - 44T-46T, 40T-42T, 36T-38T
- FINISH**
- Bead blasted anodized black



➤ **Chaining Steel Bolt / Nut**

- FEATURES**
- Forged chromoly
- SPECIFICATIONS**
- M8x0.75P / 5mm hexagonal
- FINISH**
- ED black



› **FSA 1x Alloy / Steel Chainring w/o MegaTooth (for 8S & 9S)**

Alloy
WB158 - 38T
WB159 - 36T

FEATURES

- Stamp Steel + Heat Treated

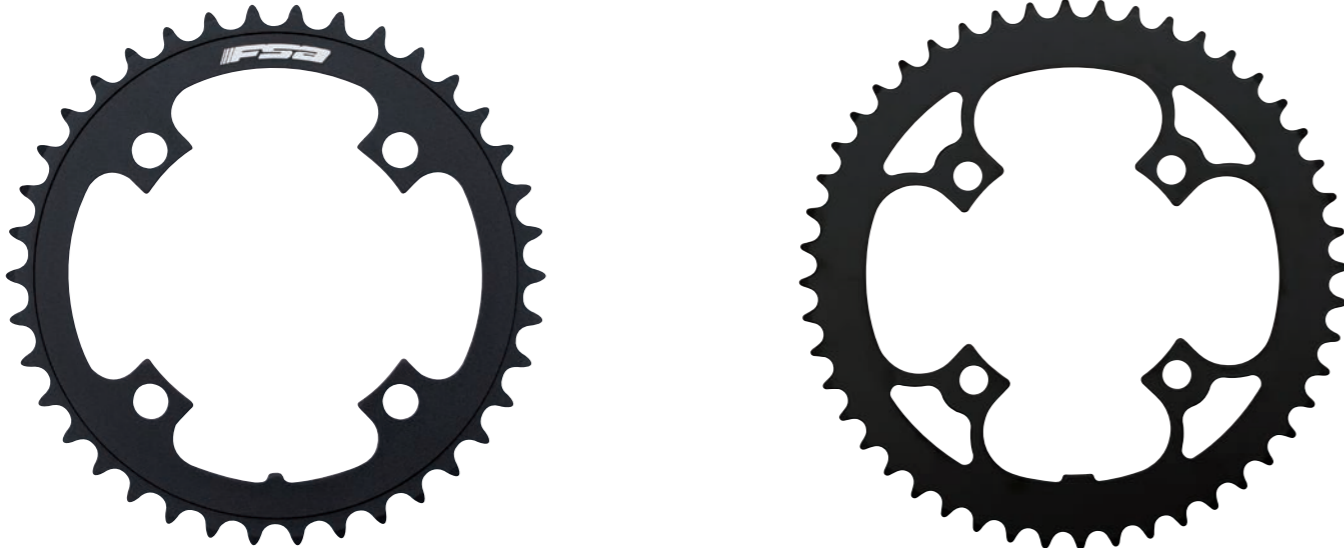
SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T

FINISH

- ED black

Steel
WA542 - 48T WA023 - 40T
WA527 - 46T WB531 - 38T
WA546 - 44T WB545 - 36T
WA516 - 42T



› **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back	 Front  Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

› **FSA 1x Steel DM MegaTooth Chainring**

WB649 - 36T
WB650 - 36T + MW743

SPECIFICATIONS

- 36T, CL - 49mm (WB649), CL - 52mm (WB650)

FINISH

- ED black



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back	 Front  Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> CK-703 / Ride 60

FEATURES

- Hollow carbon

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm

FINISH

- Color graphics

WEIGHT

- 364grams (pair)



> CK-730 / Ride 60

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 172.5mm, 170mm, 175mm

FINISH

- Painted bead blasted black, Laser graphics

WEIGHT

- 454 grams (pair)



> FSA 1x Spider

- W0195
- W0178
- W0193

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 72.4 grams (W0195), 70.5 grams (W0178), 66 grams (W0193)

Part number	W0195	W0178	W0193
1x Chainline	50mm	52mm	55mm



> FSA Alloy Chainguard

- W1086 (44T-46T)
- W1036 (40T-42T)
- W1145 (36T-38T)

FEATURES

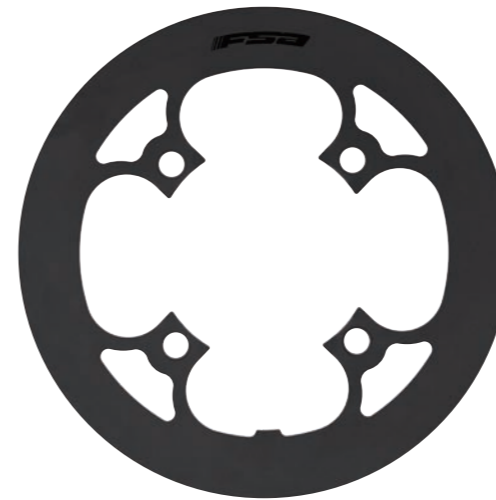
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



> FSA Alloy Chainguard

- W1152 (46T-48T)
- W1153 (42T-44T)
- W1155 (36T-38T)
- W1156 (32T-34T)

FEATURES

- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



▶ FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



▶ Chainring Steel Bolt / Nut

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring



ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T	WB614 - 32T
	WB381B - 34T	WB615 - 34T
	WB382B - 36T	WB616 - 36T
	WB383B - 38T	WB617 - 38T
	WB054A - 42T	WB618 - 42T
	WB416A - 44T	WB620 - 44T
	WB315B - 46T	WB619 - 46T
	WB409B - 48T	WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T	WB494 - 34T
	WB468 - 36T	WB495 - 36T
	WB488 - 38T	WB496 - 38T
	WB466 - 42T	WB497 - 42T
	WB464 - 44T	WB498 - 44T

▶ KFX

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



▶ CK-702/IS

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



▶ CK-8685-1/IS

FEATURES

- Hollow carbon
- Crank bolt with QR-32

SPECIFICATIONS

- 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Color graphics

WEIGHT

- 273 grams (pair)



▶ CK-746-1/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH


- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 495 grams (pair)

Note: These crank arms are specially designed for a narrow Q-Factor of 158mm, please check if frame spec is adequate for the crank arms before spec and use.



> CK-746-2/IS 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 477 grams (pair)



> FSA 1x / 2x in one for Spider

W0005

SPECIFICATIONS

- BCD 110mm

FINISH

- Bead blasted anodized black

WEIGHT

- 71 grams

Part number	W0005
1x Chainline	50mm
2x Chainline	50mm



> FSA 2x for SRAM 12S Road Chainring

50/37 SS (Alloy / Alloy) WA875 / WB648
48/35 SS (Alloy / Alloy) WA878 / WB655

FEATURES

- Precision CNC machined AL7075/T6

SPECIFICATIONS

- BCD 110mm, CL - 50mm

FINISH

- Bead blasted anodized black, Laser graphics



> FSA 1x Spider

W0004

FEATURES

- Forged AL6061/T6

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 59 grams

Part number	W0004
1x Chainline	49mm



> FSA Boost148 1x Spider

W0058+MW598

FEATURES

- Forged AL6061/T6

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 59 grams

Part number	W0058+MW598
1x Chainline	52mm



> FSA 2x Chainring

50/34 SS (Alloy / Alloy) WA198 / WB291

FEATURES

- With steel chainring bolts
- 10-11 speed compatible

SPECIFICATIONS

- BCD 110mm, CL - 50mm

FINISH

- Bead blasted anodized black, Laser graphics



> FSA 1x MegaTooth Alloy Chainring

- WA021 - 48T
- WA670 - 44T
- WA669 - 42T
- WA607 - 40T
- WA606 - 38T
- WA662 - 36T

FEATURES

- Precision CNC machined AL7075/T6

SPECIFICATIONS

- BCD 110mm - 48T, 44T, 42T, 40T, 38T, 36T

FINISH

- Anodized black, Laser graphics



> FSA 1x MTB Alloy MegaTooth Chainring

FEATURES

- Precision CNC machined AL7075/T6
- Long tooth profile enhances chain retention
- Thick-Thin tooth design for maximum chain engagement





SPECIFICATIONS

- BCD 104mm - 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser etched logo



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB380B - 32T	WB614 - 32T
	WB381B - 34T	WB615 - 34T
	WB382B - 36T	WB616 - 36T
	WB383B - 38T	WB617 - 38T

> FSA E-Bike Lockring

ML097

FEATURES

- Steel
- M30x1.0P

FINISH

- CP

WEIGHT

- 7.4 grams



Diamond tooth shape



Increased link clearance reduces noise and wear



Chamfer on the teeth helps shed mud



Taller teeth for more security



Asymmetric tooth design provides smoother chain engagement

NEVER DROP YOUR CHAIN

Designed to handle the high torque and stresses produced by today's e-bikes. Full Speed Ahead's new MegaTooth E-Bike Chainring delivers the highest level of chain retention and durability.

> **KFX** 

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



> **CK-703/IS**  

FEATURES

- Hollow carbon

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive


FINISH

- Color graphics

WEIGHT

- 364grams (pair)



> **CK-745/IS** 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-220/IS** 

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



> **CK-702/IS**  

FEATURES

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive



FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



> **CK-762/IS** 
CK-762NC/IS 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-220/IS/wider** 

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



> **CK-320/IS** 

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 505 grams (pair)



› **FSA 1x Spider**

W0180 (The spider will go from Nidec motor only)

FEATURES

- Forged AL6061/T6

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 49 grams

Part number	W0180
1x Chainline	47.5mm



› **FSA Alloy Chainguard**

- W1086 (44T-46T)
- W1036 (40T-42T)
- W1145 (36T-38T)

FEATURES

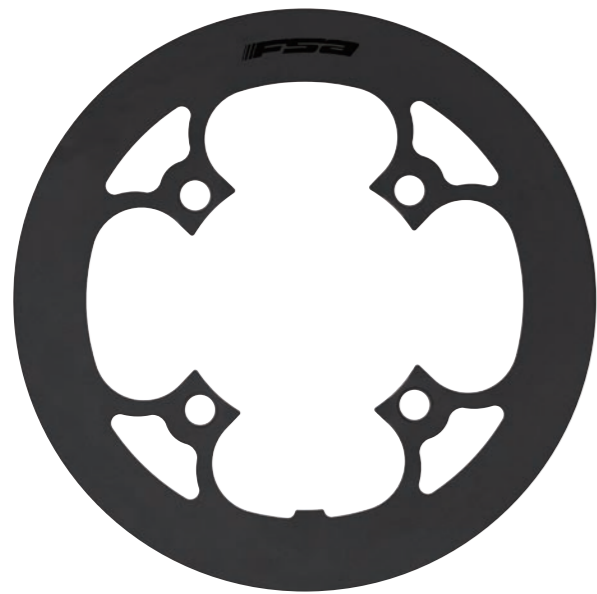
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



› **FSA Alloy Chainguard**

- W1152 (46T-48T)
- W1153 (42T-44T)
- W1155 (36T-38T)
- W1156 (32T-34T)

FEATURES

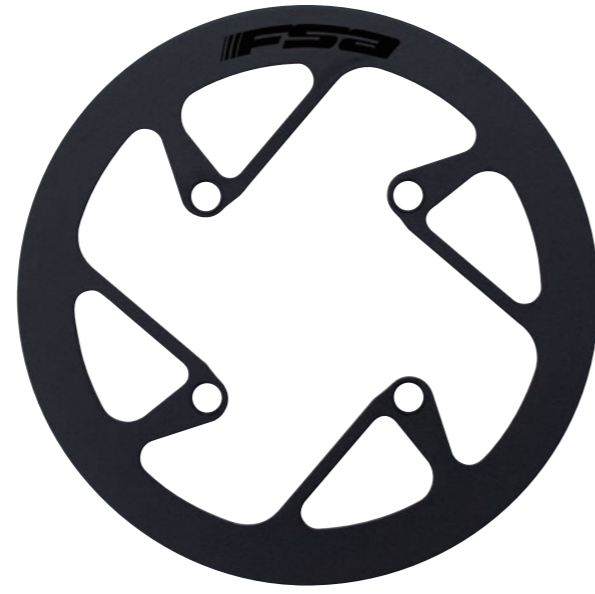
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



› **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring

ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

› **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080





SPECIFICATIONS





- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back	 Front  Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front  Back	 Front  Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> CK-752

FEATURES

- Forged AL6061/T6 crank arms
- Include spindle bolt ML690

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 496 grams (pair)



> FSA for 1x Alloy Spider

- W0169
- W0164
- W0174

As with all FSA components, our E-bike parts are designed with the latest technologies and made with the best materials for a lifetime of trouble-free riding enjoyment. Full Speed Ahead is among the top brands of e-bike world!

FEATURES

- Forged AL6061/T6 Spider.

SPECIFICATIONS

- BCD 104mm

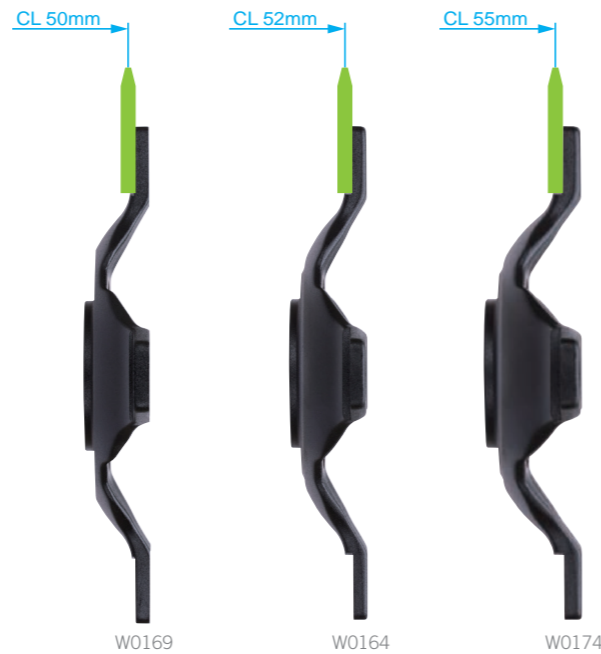
FINISH

- Bead blasted anodized black

Weight

- 81grams (W0169)
- 83grams (W0164)
- 77.5grams (W0174)

Part number	W0169	W0164	W0174
1x Chainline	50mm	52mm	55mm



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> Chainring Steel Bolt / Nut

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T



ML138(bolt)+ML080(nut)
For Single Chainring

> CK-751

FEATURES

- Forged AL6061/T6 crank arms
- Include spindle bolt ML690

SPECIFICATIONS

- 165mm, 170mm, 175mm

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 536 grams (pair)



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> FSA for 1x Alloy Spider

- W0169
- W0164
- W0174

As with all FSA components, our E-bike parts are designed with the latest technologies and made with the best materials for a lifetime of trouble-free riding enjoyment. Full Speed Ahead is among the top brands of e-bike world!

FEATURES

- Forged AL6061/T6 Spider.

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

Weight

- 81grams (W0169)
- 83grams (W0164)
- 77.5grams (W0174)

Part number	W0169	W0164	W0174
1x Chainline	50mm	52mm	55mm



> Chainring Steel Bolt / Nut

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED Black



ML138(bolt)+ML080(nut)
For Single Chainring

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> CK-758/JIS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 155mm, 165mm, BB - JIS spindle
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



> CK-745/JIS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - JIS spindle
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



> CK-746-2/JIS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - JIS spindle
- FINISH**
- Anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



> AL-8/JIS

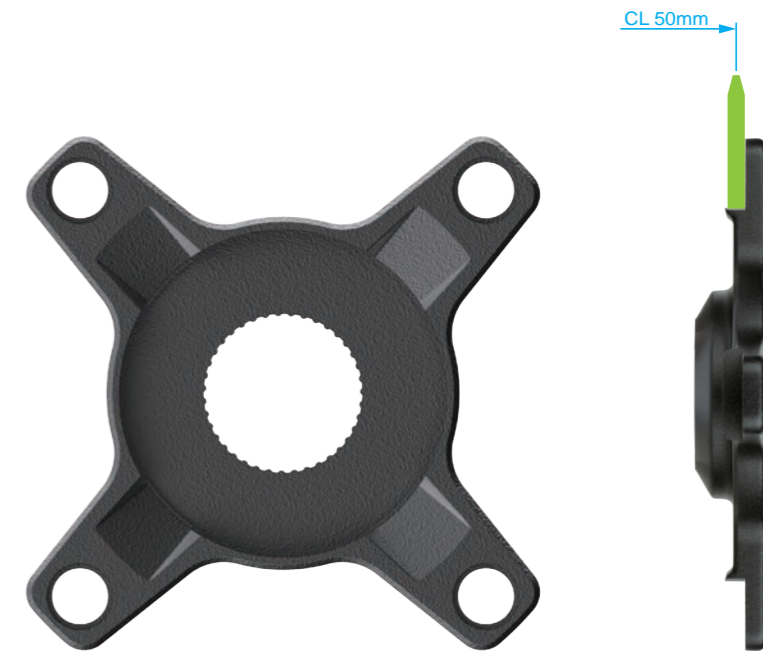
- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - JIS spindle
- FINISH**
- Painted blasted black, Printed graphics
- WEIGHT**
- 481 grams (pair)



> FSA 1x Spider

- W0168
- FEATURES**
- Forged AL6061 spider
- SPECIFICATIONS**
- BCD 104mm
- FINISH**
- Bead blasted anodized black
- WEIGHT**
- 77.4grams (W0168)

Part number	W0168
1x Chainline	50mm



> FSA Steel Chainguard

- W1086 / WA546 (44T)
W1145 / WB531 (38T)
- FEATURES**
- With bolt / nut = ML053 / ML551
- SPECIFICATIONS**
- BCD 104mm - 38T, 44T
- FINISH**
- Bead blasted anodized black, ED black



> Chaining Steel Bolt / Nut

- FEATURES**
- Forged chromoly
- SPECIFICATIONS**
- M8x0.75P / 5mm hexagonal
- FINISH**
- ED black



> **CK-762/IS**
CK-762NC/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 450 grams (pair)



> **CK-220/IS**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> **CK-746-1/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive
- FINISH**
- Anodized black, 2-Tone, Laser graphics
- WEIGHT**
- 495 grams (pair)



> **FSA 1x MegaTooth Alloy Chainingring**

- WA021 - 48T
- WA670 - 44T
- WA669 - 42T
- WA607 - 40T
- WA606 - 38T
- WA662 - 36T

- FEATURES**
- Precision CNC machined AL7075/T6
- SPECIFICATIONS**
- BCD 110mm - 48T, 44T, 42T, 40T, 38T, 36T
- FINISH**
- Anodized black, Laser graphics



> **CK-746-2/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Anodized black, 2-Tone, Laser graphics
- WEIGHT**
- 477 grams (pair)



> **FSA 2x Chainingring**

50/34 SS (Alloy / Alloy) WA198 / WB291

- FEATURES**
- With steel chaining bolts
 - 10-11 speed compatible
- SPECIFICATIONS**
- BCD 110mm
- FINISH**
- Bead blasted anodized black



ML163(bolt)+ML085(nut)
Chaining bolts



> **CK-762/IS**
CK-762NC/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



> **CK-762/IS/wider**
CK-762NC/IS/wider

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



> **CK-758/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 155mm, 165mm, BB - JIS spindle
- FINISH**
- Bead blasted anodized black, Laser graphics
- WEIGHT**
- 477 grams (pair)



> **CK-320/IS**

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155mm, 160mm, 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 505 grams (pair)



> **CK-746-1/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive
- FINISH**
- Anodized black, 2-Tone, Laser graphics
- WEIGHT**
- 495 grams (pair)



> **CK-746-2/IS**

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Anodized black, 2-Tone, Laser graphics
- WEIGHT**
- 477 grams (pair)



> **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED Black



ML138(bolt)+ML080(nut)
For Single Chainring

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB380B - 32T	WB614 - 32T
	WB381B - 34T	WB615 - 34T
	WB382B - 36T	WB616 - 36T
	WB383B - 38T	WB617 - 38T
	WB054A - 42T	WB618 - 42T
	WB416A - 44T	WB620 - 44T
	WB315B - 46T	WB619 - 46T
	WB409B - 48T	WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification		
Item Number	WB487 - 34T	WB494 - 34T
	WB468 - 36T	WB495 - 36T
	WB488 - 38T	WB496 - 38T
	WB466 - 42T	WB497 - 42T
	WB464 - 44T	WB498 - 44T

> **CK-762/IS**
CK-762NC/IS



FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-746-1/IS**



FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 495 grams (pair)

Note: These crank arms are specially designed for a narrow Q-Factor of 173mm, please check if frame spec is adequate for the crank arms before spec and use.



> **CK-745/IS**



FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-746-2/IS**



FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 477 grams (pair)



> CK-220/IS

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 454 grams (pair)



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> Chainring Steel Bolt / Nut

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED Black



ML138(bolt)+ML080(nut)
For Single Chainring

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> CK-702/IS

- FEATURES**
- Hollow carbon, Crank bolt with QR-32
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- UD Finish, Color graphics
- WEIGHT**
- 311 grams (pair)



> CK-762/IS
CK-762NC/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



> CK-762/IS/wider
CK-762NC/IS/wider

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 450 grams (pair)



> CK-745/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 477 grams (pair)



> CK-220/IS/wider

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> CK-220/IS

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> CK-320/IS

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 505 grams (pair)



> **FSA 2x Spider**

W0143

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 110mm

FINISH

- Bead blasted anodized black

WEIGHT

- 83.8grams

Part number	W0143
2x Chainline	45mm



> **FSA 2x Chainring**

50/34 SS (Alloy / Alloy) WA198 / WB291

FEATURES

- With steel chainring bolts
- 10-11 speed compatible

SPECIFICATIONS

- BCD 110mm, Chainline - 45mm

FINISH

- Bead blasted anodized black



ML163(bolt)+ML085(nut)
Chainring bolts



> **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



> **FSA 1x Spider**

W0175

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 110 grams

Part number	W0175
1x Chainline	56mm



> **FSA Alloy Chainguard**

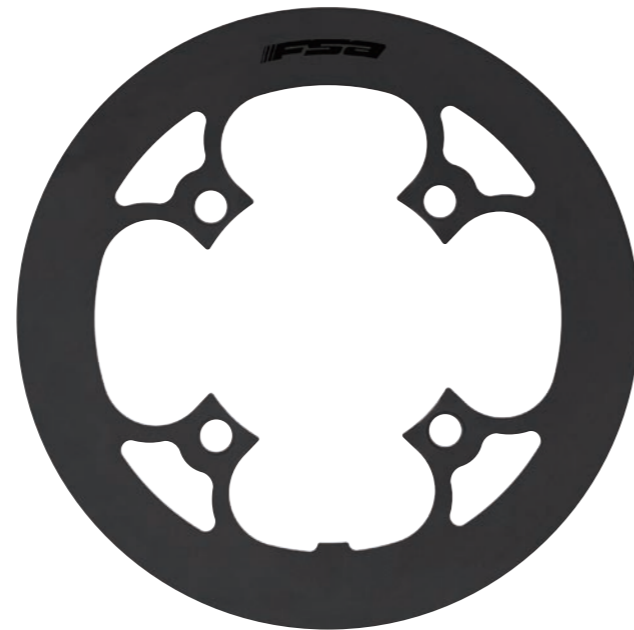
W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

SPECIFICATIONS

- BCD 104mm - 44-46T, 40-42T, 36-38T

FINISH

- Bead blasted anodized black



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 46T, 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> **KFX**

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



> **CK-703/IS**

FEATURES

- Hollow carbon

SPECIFICATIONS

- 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Color graphics

WEIGHT

- 364grams (pair)



> **CK-702/IS**

FEATURES

- Hollow carbon, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



> **CK-762/IS**
CK-762NC/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-8685-1/IS**

FEATURES

- Hollow carbon
- Crank bolt with QR-32

SPECIFICATIONS

- 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Color graphics

WEIGHT

- 273 grams (pair)



> **CK-762/IS/wider**
CK-762NC/IS/wider

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-746-1/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 495 grams (pair)



> **CK-746-2/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-745/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 477 grams (pair)



> **FSA Road 1x / 2x Alloy Spider**

W0142 (The spider will go from maxon motor only)

SPECIFICATIONS

- BCD 110mm

FINISH

- Bead blasted anodized black

WEIGHT

- 83grams

Part number	W0142
1x Chainline	47mm
2x Chainline	47mm



> **FSA 1x MegaTooth Alloy Chainring**

WA021 - 48T	WA607 - 40T
WA670 - 44T	WA606 - 38T
WA669 - 42T	WA662 - 36T

FEATURES

- Precision CNC machined AL7075/T6

SPECIFICATIONS

- BCD 110mm - 48T, 44T, 42T, 40T, 38T, 36T

FINISH

- Bead blasted anodized black, Laser graphics



> **FSA 2x Chainring**

50/34 SS (Alloy / Alloy) WA198 / WB291

FEATURES

- With steel chainring bolts
- 10-11 speed compatible

SPECIFICATIONS

- BCD 110mm, Chainline - 47mm

FINISH

- Bead blasted anodized black



ML163(bolt)+ML085(nut)
Chainring bolts



> **FSA 2x for SRAM 12S Road Chainring**

50/37 SS (Alloy / Alloy) WA875 / WB648
48/35 SS (Alloy / Alloy) WA878 / WB655

FEATURES

- Precision CNC machined AL7075/T6

SPECIFICATIONS

- BCD 110mm, CL - 47mm

FINISH

- Bead blasted anodized black, Laser graphics



ML163(bolt)+ML085(nut)
Chainring bolts



> **FSA MTB 1x Alloy Spider**

W0181 (The spider will go from maxon motor only)

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 82grams

Part number	W0181
1x Chainline	52mm



> **FSA Alloy Chainguard**

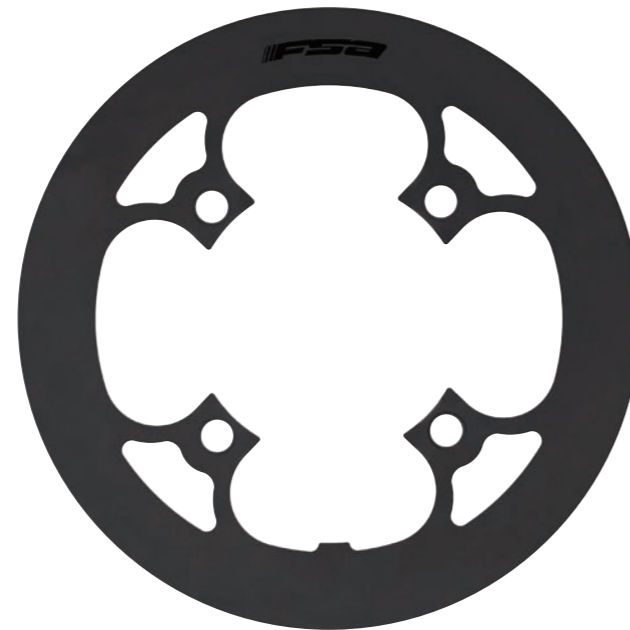
- W1086 (44T-46T)
- W1036 (40T-42T)
- W1145 (36T-38T)

SPECIFICATIONS

- BCD 104mm - 44-46T, 40-42T, 36-38T

FINISH

- Bead blasted anodized black



> **FSA Alloy Chainguard**

- W1152 (46T-48T)
- W1153 (42T-44T)
- W1155 (36T-38T)
- W1156 (32T-34T)

FEATURES

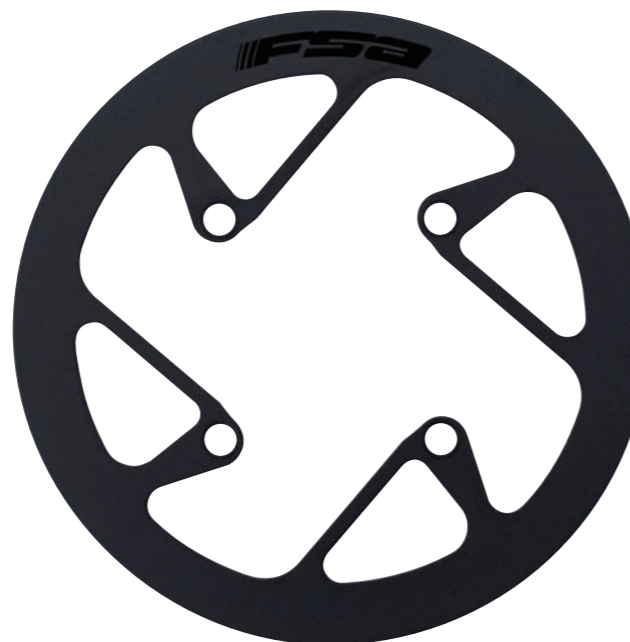
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



> **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> **FSA E-Bike Lockring**

ML097

FEATURES

- Steel
- M30x1.0P
- Torque 20-25Nm

FINISH

- CP

WEIGHT

- 7.4 grams



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> **KFX** 

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



> **CK-8685-1/IS** 

FEATURES

- Hollow carbon
- Crank bolt with QR-32

SPECIFICATIONS

- 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Color graphics

WEIGHT

- 273 grams (pair)



> **CK-762/IS** 

CK-762NC/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-762/IS/wider** 

CK-762NC/IS/wider

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-702/IS** 

FEATURES

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



> **CK-703/IS** 

FEATURES

- Hollow carbon

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive


FINISH

- Color graphics

WEIGHT

- 364grams (pair)



> **CK-746-1/IS** 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive


FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 495 grams (pair)



> **CK-746-2/IS** 

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 477 grams (pair)



> CK-745/IS

- FEATURES**
- Forged AL6061/T6 crank arms
- SPECIFICATIONS**
- 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Bead blasted anodized black, 2-tone, Laser graphics
- WEIGHT**
- 477 grams (pair)



> CK-220/IS

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> CK-220/IS/wider

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 456 grams (pair)



> CK-320/IS

- FEATURES**
- Die cast alloy crank arms
- SPECIFICATIONS**
- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive
- FINISH**
- Painted bead blasted black, Printed graphics
- WEIGHT**
- 505 grams (pair)



> FSA 1x / 2x Spider

- W0191
W0192
- FEATURES**
- Forged AL6061 spider
- SPECIFICATIONS**
- BCD 110mm
- FINISH**
- Bead blasted anodized black
- WEIGHT**
- 50grams (W0191), 53.5grams (W0192)

Part number	W0191	W0192
1x Chainline	45mm	47mm
2x Chainline	45mm	47mm



> FSA 1x MegaTooth Alloy Chainring

- WA021 - 48T WA607 - 40T
WA670 - 44T WA606 - 38T
WA669 - 42T WA662 - 36T
- FEATURES**
- Precision CNC machined AL7075/T6
- SPECIFICATIONS**
- BCD 110mm - 48T, 44T, 42T, 40T, 38T, 36T
- FINISH**
- Bead blasted anodized black, Laser graphics



> FSA 2x Chainring

- 50/34 SS (Alloy / Alloy) WA198 / WB291
- FEATURES**
- With steel chainring bolts
 - 10-11 speed compatible
- SPECIFICATIONS**
- BCD 110mm, Chainline - 47mm
- FINISH**
- Bead blasted anodized black



ML163(bolt)+ML085(nut)
Chainring bolts



> FSA 2x for SRAM 12S Road Chainring

- 50/37 SS (Alloy / Alloy) WA875 / WB648
48/35 SS (Alloy / Alloy) WA878 / WB655
- FEATURES**
- Precision CNC machined AL7075/T6
- SPECIFICATIONS**
- BCD 110mm, CL - 47mm
- FINISH**
- Bead blasted anodized black, Laser graphics



ML163(bolt)+ML085(nut)
Chainring bolts



> FSA 1x Alloy Spider

W0188
W0189
W0190

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

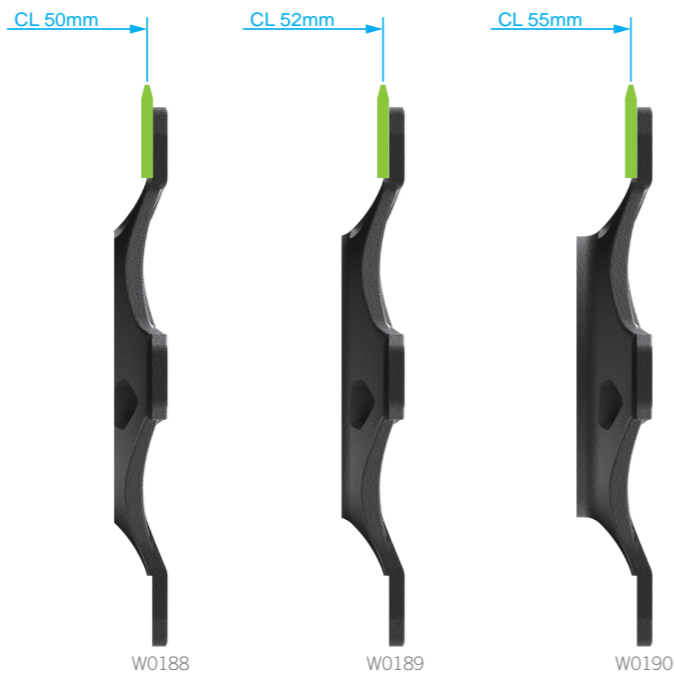
FINISH

- Bead blasted anodized black

WEIGHT

- 43.2grams (W0188), 48.1grams (W0189), 54.7grams (W0190)

Part number	W0188	W0189	W0190
1x Chainline	50mm	52mm	55mm



> FSA Alloy Chainguard

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES

- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



> FSA Alloy Chainguard

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

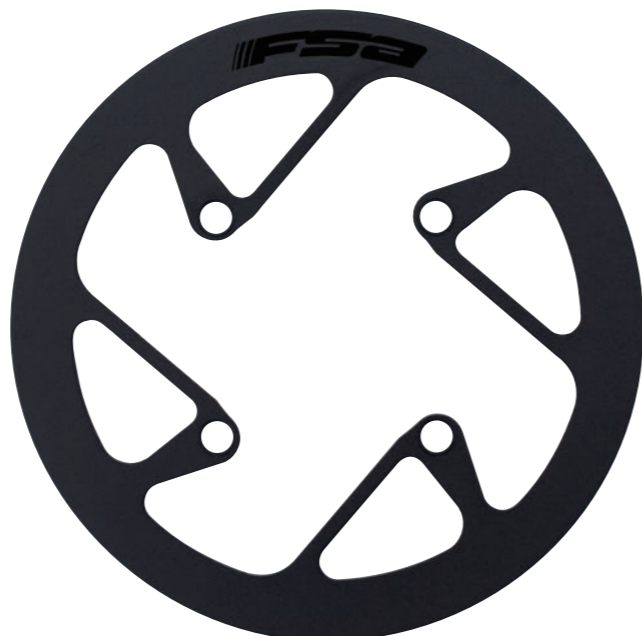
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> **KFX**

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



> **CK-702/IS**

FEATURES

- Hollow carbon, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



> **CK-745/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-220/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



> **CK-762/IS**
CK-762NC/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-762/IS/wider**
CK-762NC/IS/wider

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-220/IS/wider**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



> **CK-320/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 505 grams (pair)



> FSA Alloy Spider for SMN / Sram 1x 12S Spider

W0151
W0152
W0172

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 50.5grams (W0151), 55grams (W0152), 57grams (W0172)

Part number	W0151	W0152	W0172
1x Chainline	50mm	52mm	55mm



> FSA Alloy 1x Spider

W0134
W0138
W0140

FEATURES

- Forged AL6061 spider

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 61.5grams (W0134), 65.5grams (W0138), 67.5grams (W0140)

Part number	W0134	W0138	W0140
1x Chainline	50mm	52mm	55mm



> FSA 2x Alloy Chainring

48/32 - WA351+WB104
50/34 - WA196+WB099

FEATURES

- With steel chainring bolts (ML163+ML085)
- 10-11 speed compatible

SPECIFICATIONS

- BCD 104mm, CL - 51mm (W0138), CL - 53mm (W0140)

FINISH

- Bead blasted anodized black



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB337A - 32T WB452A - 34T WB339A - 36T WB453A - 38T WB454A - 42T WB450A - 44T WB455A - 46T WB451A - 48T	WB606 - 32T WB607 - 34T WB608 - 36T WB609 - 38T WB610 - 42T WB611 - 44T WB612 - 46T WB613 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB485 - 34T WB469 - 36T WB486 - 38T WB467 - 42T WB465 - 44T	WB499 - 34T WB600 - 36T WB601 - 38T WB602 - 42T WB603 - 44T

> FSA Direct Mount Steel MegaTooth Chainring





SPECIFICATIONS

- 38T, 36T, 34T, **CL - 52mm**

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB480 - 38T	WB605 - 38T
	WB349E - 36T	WB493 - 36T
	WB478 - 34T	WB604 - 34T

> FSA Direct Mount Steel MegaTooth Chainring





SPECIFICATIONS

- 42T, **CL - 50mm**

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	WB659A - 42T	WB660 - 42T

> FSA Direct Mount Steel MegaTooth Chainring+Chainguard

- 11S SH12
 W1169 / WB629 (38T) W1169 / WB632 (38T)
 W1170 / WB628 (36T) W1170 / WB631 (36T)
 W1171 / WB627 (34T) W1171 / WB630 (34T)





SPECIFICATIONS

- BCD 104mm - 38T, 36T, 34T, **CL - 52mm**

FINISH

- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	W1169 / WB629 (38T)	W1169 / WB632 (38T)
	W1170 / WB628 (36T)	W1170 / WB631 (36T)
	W1171 / WB627 (34T)	W1171 / WB630 (34T)

> FSA Direct Mount Steel MegaTooth Chainring+Chainguard

- 11S SH12
 W1174 / WB659A (42T) W1174 / WB660 (42T)





SPECIFICATIONS

- 42T, **CL - 50mm**

FINISH

- Bead blasted anodized black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front	 Front
	 Back	 Back
Item Number	W1174 / WB659A (42T)	W1174 / WB660 (42T)

> FSA 1x Steel Spider Steel

W0146
W0147

FEATURES

- Forged steel spider

SPECIFICATIONS

- BCD 104mm

FINISH

- ED black

WEIGHT

- 115 grams (W0146), 115 grams (W0147)

Part number	W0146	W0147
1x Chainline	50mm	52mm



> FSA Alloy Chainguard

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES

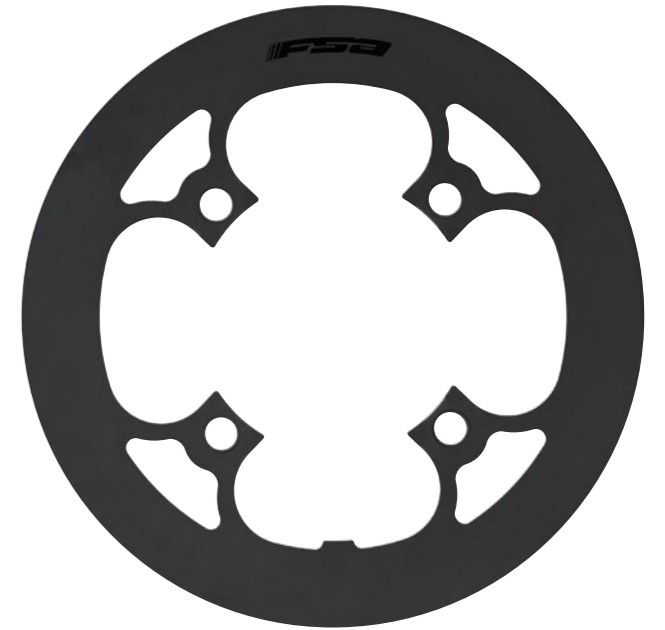
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



> FSA 1x Alloy / Steel MegaTooth Chainring

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

> FSA Alloy Chainguard

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

> Chainring Steel Bolt / Nut

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring



ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

> **KFX**

CK-9011/IS

FEATURES

- Modular super light weight aluminum crank, Crank bolt with QR-32

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, Laser graphics, Color graphics, CNC machining

WEIGHT

- 350 grams (pair)



> **CK-762/IS**
CK-762NC/IS

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, 2-tone, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-8685-1/IS**

FEATURES

- Hollow carbon
- Crank bolt with QR-32

SPECIFICATIONS

- 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Color graphics

WEIGHT

- 273 grams (pair)



> **CK-762/IS/wider**
CK-762NC/IS/wider

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 450 grams (pair)



> **CK-702/IS**

FEATURES

- Hollow carbon

SPECIFICATIONS

- 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- UD Finish, Color graphics

WEIGHT

- 311 grams (pair)



> **CK-745/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Bead blasted anodized black, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-746-1/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 172.5mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 495 grams (pair)

Note: These crank arms are specially designed for a narrow Q-Factor of 158mm, please check if frame spec is adequate for the crank arms before spec and use.



> **CK-220/IS/wider**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155, 160mm, 165mm, 170mm, 172.5, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



> **CK-746-2/IS**

FEATURES

- Forged AL6061/T6 crank arms

SPECIFICATIONS

- 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Anodized black, 2-Tone, Laser graphics

WEIGHT

- 477 grams (pair)



> **CK-320/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 503 grams (pair)



> **CK-220/IS**

FEATURES

- Die cast alloy crank arms

SPECIFICATIONS

- 155mm, 160mm, 165mm, 170mm, 175mm, BB - ISIS Drive

FINISH

- Painted bead blasted black, Printed graphics

WEIGHT

- 456 grams (pair)



> **FSA MTB 1x Alloy Spider**

W0196 (The spider will go from Askoll motor only)

SPECIFICATIONS

- BCD 104mm

FINISH

- Bead blasted anodized black

WEIGHT

- 56grams

Part number	W0196
1x Chainline	53mm



> **FSA Alloy Chainguard**

W1086 (44T-46T)
W1036 (40T-42T)
W1145 (36T-38T)

FEATURES

- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 44T-46T, 40T-42T, 36T-38T

FINISH

- Bead blasted anodized black



> **FSA 1x Alloy / Steel MegaTooth Chainring**

Alloy

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 48T, 46T, 44T, 42T, 38T, 36T, 34T, 32T

FINISH

- Bead blasted anodized black, Laser graphics



> **FSA Alloy Chainguard**

W1152 (46T-48T)
W1153 (42T-44T)
W1155 (36T-38T)
W1156 (32T-34T)

FEATURES

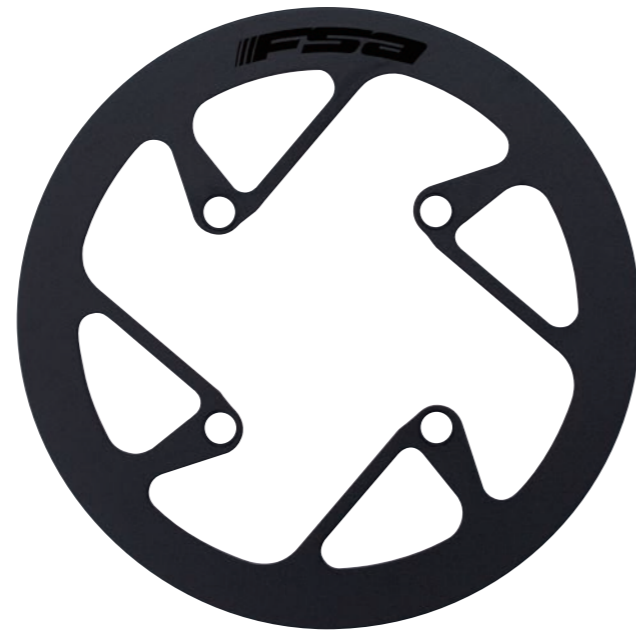
- With chainring spacer / bolt / nut = MW058K:3.5mm / ML053 / ML551

SPECIFICATIONS

- BCD 104mm - 46T-48T, 42T-44T, 36T-38T, 32T-34T

FINISH

- Bead blasted anodized black



Steel

FEATURES

- With chainring bolt / nut = ML138 / ML080

SPECIFICATIONS

- BCD 104mm - 44T, 42T, 38T, 36T, 34T

FINISH

- ED black



> **Chainring Steel Bolt / Nut**

FEATURES

- Forged chromoly

SPECIFICATIONS

- M8x0.75P / 5mm hexagonal

FINISH

- ED black



ML138(bolt)+ML080(nut)
1x spider + Chainring

ML053(bolt)+ML551(nut)
1x spider + Chainring + Chainguard

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB380B - 32T WB381B - 34T WB382B - 36T WB383B - 38T WB054A - 42T WB416A - 44T WB315B - 46T WB409B - 48T	WB614 - 32T WB615 - 34T WB616 - 36T WB617 - 38T WB618 - 42T WB620 - 44T WB619 - 46T WB621 - 48T

FSA Tooth Profile	Megatooth A 3.5mm	Megatooth SH12 2.8mm
Compatible Chains	All 9, 10 and 11sp chains, Sram 12sp chains (T-Type Flattop, Eagle), KMC 12sp chains	SMN 12sp
Identification	 Front Back	 Front Back
Item Number	WB487 - 34T WB468 - 36T WB488 - 38T WB466 - 42T WB464 - 44T	WB494 - 34T WB495 - 36T WB496 - 38T WB497 - 42T WB498 - 44T

WHEELSET

> E-MTB i29 700c / 29" Boost148 DB

WH-TX-928-9/148/DB

> E-MTB i29 650b / 27.5" Boost148 DB

WH-TX-928-7/148/DB

FEATURES

- Claim a 150kg system weight
- Asymmetric, 30mm depth x 35mm wide carbon rim
- Tubeless compatible
- Alloy hubs
- 148 - 15 x 110mm TA front hub and 12 x 148mm TA rear hub compatibility
- Steel freehub
- 7 Cartridge bearings (2F+5R)
- 2-cross straight gauge spokes
- Artisan built, entirely by hand
- Includes tubeless valves (1 pair) and spoke protector

SPECIFICATIONS

- 6-pawl steel for SMN 9-11sp or SRAM XD freehub
- Available in 27.5" or 29"

FINISH

- Color graphics - black

WEIGHT

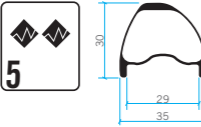
- 1,997 grams / pair (w/o QR, rim tape) - 29"
- 1,937 grams / pair (w/o QR, rim tape) - 27.5"



INTENDED USE



ASTM



WHEELSET

> E-MTB i30 700c / 29" Boost148 DB

WH-TX-964-9/148/DB

> E-MTB i30 650b / 27.5" Boost148 DB

WH-TX-964-7/148/DB

FEATURES

- Claim a 150kg system weight
- Asymmetric, 23mm depth x 34mm wide alloy rim
- Tubeless compatible
- Alloy hubs for DP spokes
- 148 - 15 x 110mm TA front hub and 12 x 148mm TA rear hub compatibility
- Steel freehub
- 7 Cartridge bearings (2F+5R)
- 2-cross straight gauge spokes
- Artisan built, entirely by hand
- Includes tubeless valves (1 pair) and spoke protector

SPECIFICATIONS

- 6-pawl steel for SMN 9-11sp or SRAM XD freehub
- Available in 27.5" or 29"

FINISH

- Color graphics - black

WEIGHT

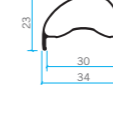
- 2,130 grams / pair (w/o TA, rim tape) - 29"
- 2,061 grams / pair (w/o TA, rim tape) - 27.5"



INTENDED USE



ASTM



> E-MTB i30 700c / 29" Boost148 DB

WH-TX-963-9/148/DB

FEATURES

- Claim a 150kg system weight
- Asymmetric, 23mm depth x 34mm wide alloy rim
- Tubeless compatible
- Alloy hubs for JB spokes
- 148 - 15 x 110mm TA front hub and 12 x 148mm TA rear hub compatibility
- Steel freehub
- 7 Cartridge bearings (2F+5R)
- 2-cross straight gauge spokes
- Artisan built, entirely by hand
- Includes tubeless valves (1 pair) and spoke protector

SPECIFICATIONS

- Steel for SMN 9-11sp or SRAM XD freehub
- Available in 29"

FINISH

- Color graphics - black

WEIGHT

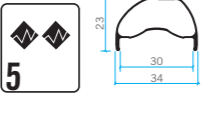
- 2,245 grams / pair (w/o TA, rim tape) - 29"



INTENDED USE



ASTM



ACCESSORIES

> SF11 E-Bike Chain

CN-1105

FEATURES

- Optimized for E-Bike performance
- Superior durability
- For 11 speed drive train

SPECIFICATIONS

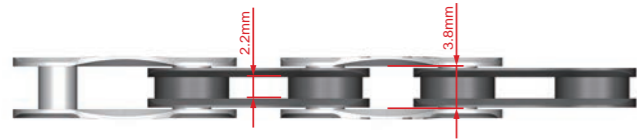
- 5.6mm width

FINISH

- Nickel outer plated finish, CP inner plated finish

WEIGHT

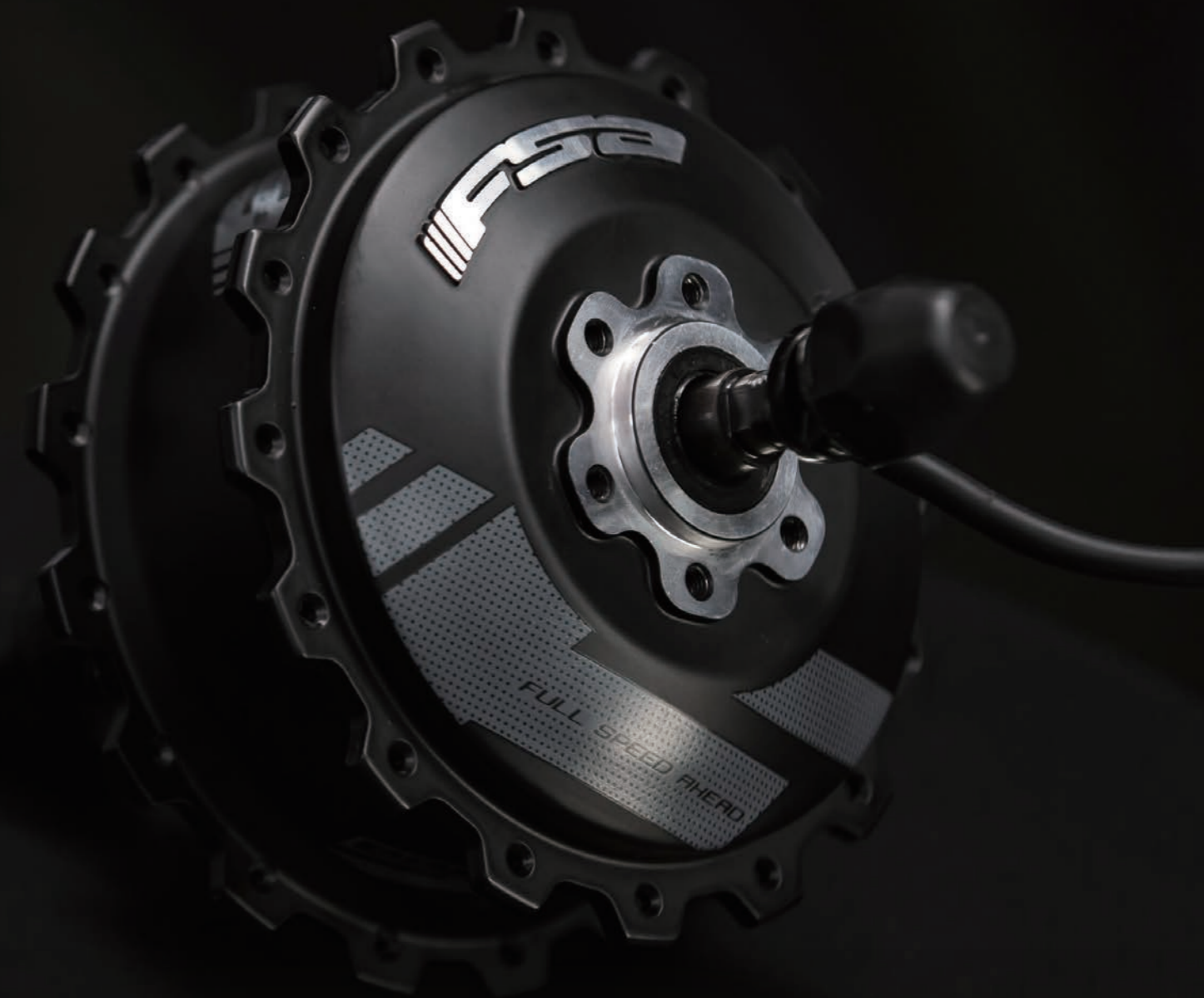
- 276 grams(120 Links)



> Bolt Chart

			
BOLT CODE	QR-32	ML054	ML558
CRANKSET BOTTOM BRACKET	CK-8685/IS CK-702/IS CK-9011/IS CK-703	ISIS	GEN3 BNI
			
BOLT CODE	ML019	QR-34	ML690
CRANKSET BOTTOM BRACKET	JIS	CK-730	SHIMANO

FSA SYSTEM





FSA E-BIKE

Already the leading provider of e-bike transmission components including cranksets, spiders and sprockets, FSA now launches the new motor system representing the culmination of more than a decade of research, development and experience in the e-bike market. We have worked as drivetrain partner with many established motor system providers, including Bosch, Brose, Fazua, Polini and Yamaha. Likewise, we have supplied e-bike drivetrain components to brands including Bianchi, Cube, Focus, KTM, Pinarello and Scott, among many others.

With this pedigree it's clear that FULL SPEED AHEAD IS AMONG THE TOP BRANDS OF E-BIKE WORLD!



FSA SYSTEM

The "FSA System" comprises of a rear hub electric-assist motor, a 250Wh battery unit, a further 250Wh expansion battery, with an integrated on-bike control unit and smartphone app. FSA System's compact design and low weight (a full system weighs just 4.0kg) ensures sleek integration for e-road, e-gravel and commuter bikes.

With a 20-cell, 250Wh battery unit that integrates completely inside the downtube, and an additional 250Wh battery installable within a bottle cage for longer rides, the system has a flexible range to suit all types of riders. The system is completed with an assistance remote control that integrates into the top tube and an easily accessible charge port situated above the bottom bracket. There are four assistance settings, including an 'eco' Blue up to a 'boost' Red mode, serving up to a maximum of 250W, while the motor itself features an integrated torque sensor and two speed sensors, which can adapt easily to different riding styles and changing conditions. Not only does it provide extremely responsive yet consistent assistance, it is quiet, outputting less than 55 decibels.

When exceeding the EU-mandated limit of 25km/h for electrical assistance (32km/h for the USA), the "FSA System" hub shuts down and presents minimal friction and resistance to the drivetrain, allowing the rider to experience a natural and free pedaling motion. Together with the low total weight and compact integration of the system, the use of standard cranks allows the e-bike to fit like a standard bike and handle as close to an ordinary pedal-powered bike as possible. The compact design also can fit down to XS sized bike frames and all geometries.

We have designed our motor system to last, utilising our class-leading expertise in drivetrain component engineering and production. The hub features superior bearing life thanks to our core knowledge base in hub, headset and bottom bracket component manufacturing and also features highly resilient waterproofing to ensure long maintenance cycles and reducing the need for service. The FSA System is easy to maintain and install, while our network of 40 service centers worldwide supplies comprehensive technical support for dealers and end users.

BENEFITS

- The motor adopts an INTEGRATED TORQUE SENSOR, which has a fast response and good linearity. It has continuous and stable power, and can automatically adjust the speed, large starting torque, great climbing assistance, and strong anti-blocking ability.
- Integrated battery design (250WH).
- External battery as optional (+250WH) for total 500WH.
- 1 on/off button and assistance level selection.
- 4 assistance levels, including Blue (eco) and Blue (boost).
- High efficiency, low power consumption and long mileage with the GREEN mode.
- Superior waterproof performance.
- Long life (bearing life).
- Long maintenance cycle.
- Easy to maintain.
- Easy to install.
- No limit for bike frame geometry, even for a pure road race geometry in size S and XS!
- Low Q-factor.
- Incredibly low friction over 25KMh.
- Just 2.4 kg.
- Spare parts available via FSA Service Centers network.
- Specific FSA app for end user.
- Remote diagnostic for dealer.

OVERVIEW

- 1 Motor
- 2 Controller
- 3 Battery
- 4 Display
- 5 Charging Port



1 Motor



- Thru-Axle 12, can be integrated with most TA12 frame
- Integrated TORQUE and SPEED sensors
- Integrated inner battery design, and optional range extender battery
- Display controls 4 assist modes, with saperate LED signal from battery level
- Full system weighs just 3.98kg

FEATURES

- Thru-Axle 12, can be integrated with most TA12 frame
- Integrated TORQUE and SPEED sensors, which has a fast and linear response. It has continuous and stable power, and can automatically adjust the speed, large starting torque, great climbing assistance, and strong anti-blocking ability.
- Incredibly low friction over 25Km/h
- Superior waterproof performance – IP65
- Long maintenance cycle, and long bearings life
- 6 bolt disc brake compatible
- Canbus communication

SPECIFICATIONS

- Motor type - BLDC
- Rated power (w) - 250W
- Rated voltage (v) - 36V (Min 30V ; Max 42V)
- Max speed (km/h) - 25 (EU) ; 32 (US)
- Max torque - 40Nm
- Wheel size - 700C
- Disc brake speed - 6 bolt ≥ 160mm
- Disc brake screw - M5x7(x6)

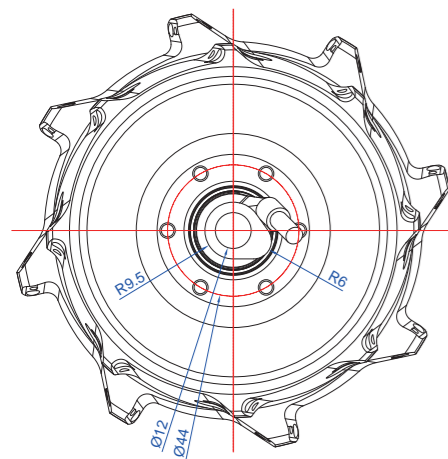
FINISH

- Black

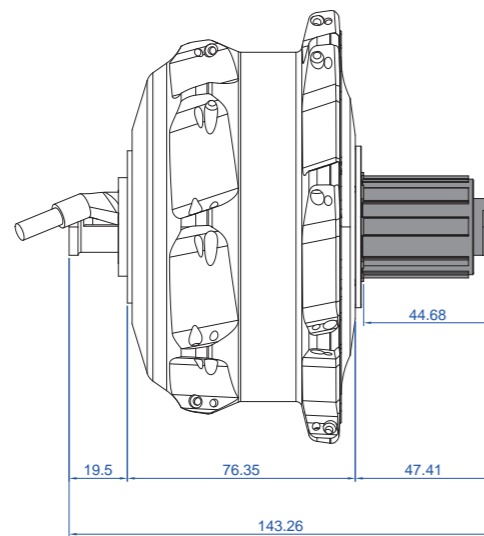
WEIGHT

- 2.3 kg

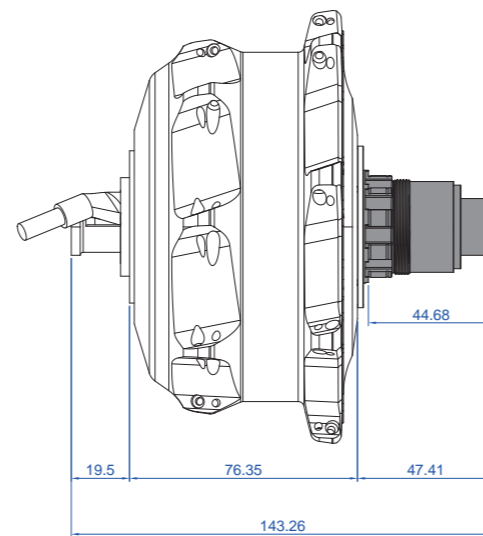
Remark: Frame Design: 142mm thru-axle Spoke Spec: 1:1, Straight Pull, P14, 32H
 Note: In order to meet the bearing requirements of the motor, the through axle must be round. No tapered or stepped through axles can be used.



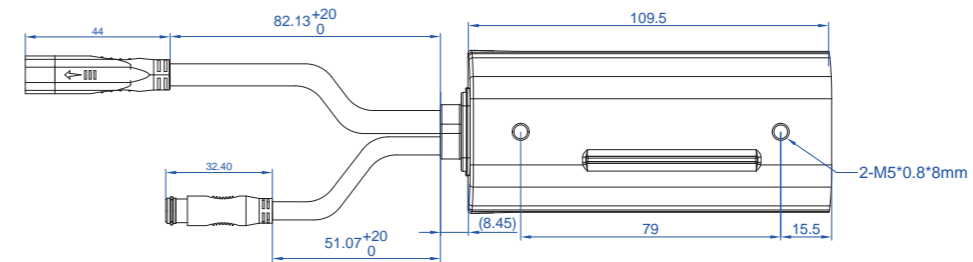
SMN Compatibility



XDR Compatibility



2 Controller



3 Battery



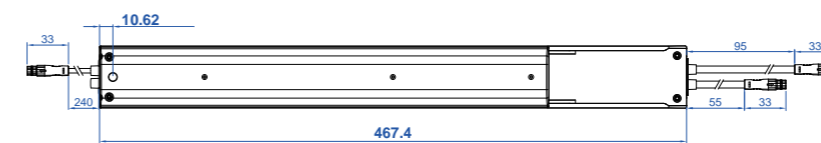
Please fully charge the battery before using it.
 If the battery will not be used for an extended period (more than 3 months), Please keep the power stored at 30%~60%; if storage time exceeds 6 months, please check whether the power is at 30%~60%. If it is insufficient, please charge it; if the lithium battery has low power for an extended period, the battery performance will be damaged.

FEATURES

- Li-ion battery
- SAMSUNG cells

Battery specification

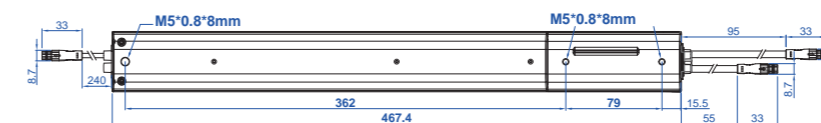
Rated voltage (v)	36V
Max output	13A
Charging voltage	CC-CV 2A max 42.0 V
Type cell	18650
Battery weight	1.4kg
Charging time	3.5~4howr
Recharge cycle	500 (60% capacity)



Battery storage (°C)

Temperature range of use	0~40
Temperature range of charging	10~40
Long life storage temperature	0~20 (humidity<65%)

Controller / Battery / Frame assembling



After the battery is combined with the controller, use three M5 screws on the outside of the down tube to lock the battery/controller inside the down tube. Please be sure to lock it according to the picture to avoid shaking when riding.

At the Power button end of the battery, the wiring method is from the down tube to the top tube through the head tube. The route needs to be properly designed to avoid possible damage to the wire.

The two connectors at the controller end have the same function and are connected to the controller and the charging port.

RANGE EXTENDER BATTERY



FEATURES

- Li-ion battery
- 21700 battery cell
- The System will automatically switch between inner battery and range extender battery

SPECIFICATIONS

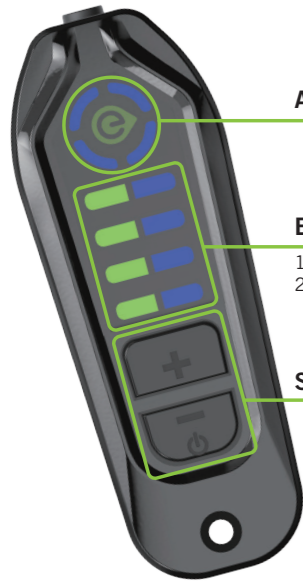
- CAPACITY: 180 wh
- VOLTAGE: 36V
- CHARGING TIME: 3h

4 Display

Key display:

FEATURES

- Separate command for On/Off and assist mode selection.
- LED signal are always visible, for battery level and assist mode.



Assist mode

Battery level

1. Main battery (single battery)
2. Range extender battery (main battery + range extender battery)

Switch button / assist adjustment button

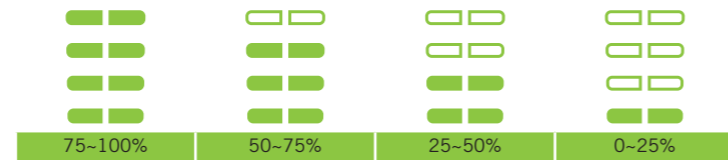
Assist mode

Power assist mode control: +/- button to control the increase or decrease of power assist, the power assist modes are distinguished 1.NONE 2.ECO 3.SPORT 4.POWER 5.BOOST It is recommended to turn on the bicycle while stationary, so that the torque sensor can complete the zero calibration; it is not recommended to turn on and off the bicycle while riding.

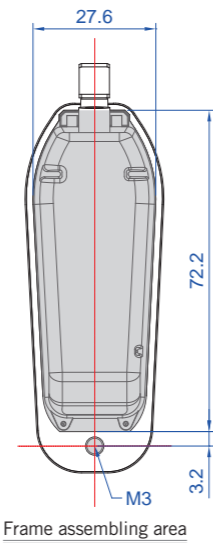
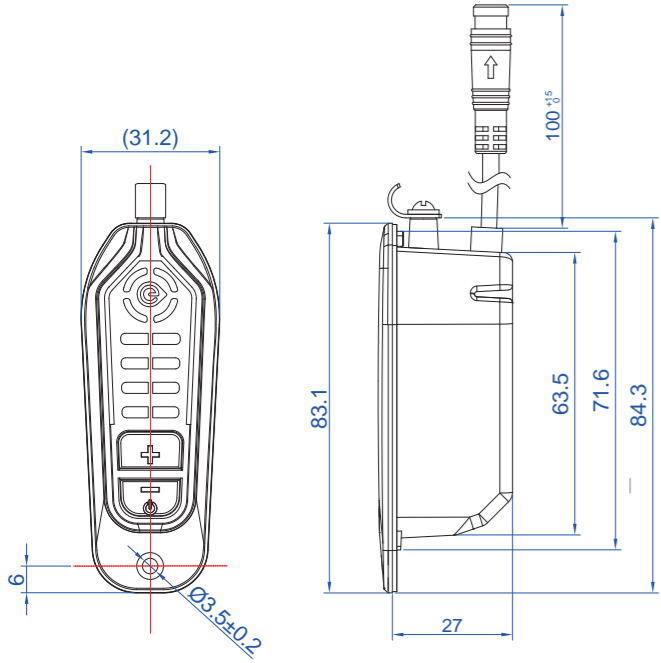
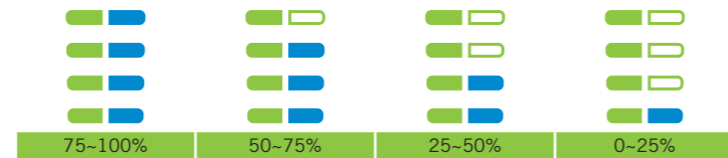


Battery level

1. Main battery (single battery)



2. Range extender battery (main battery + range extender battery)



Power on/off

Turn on: press button for 1 seconds.
Turn off: press and hold the button for 3 seconds.

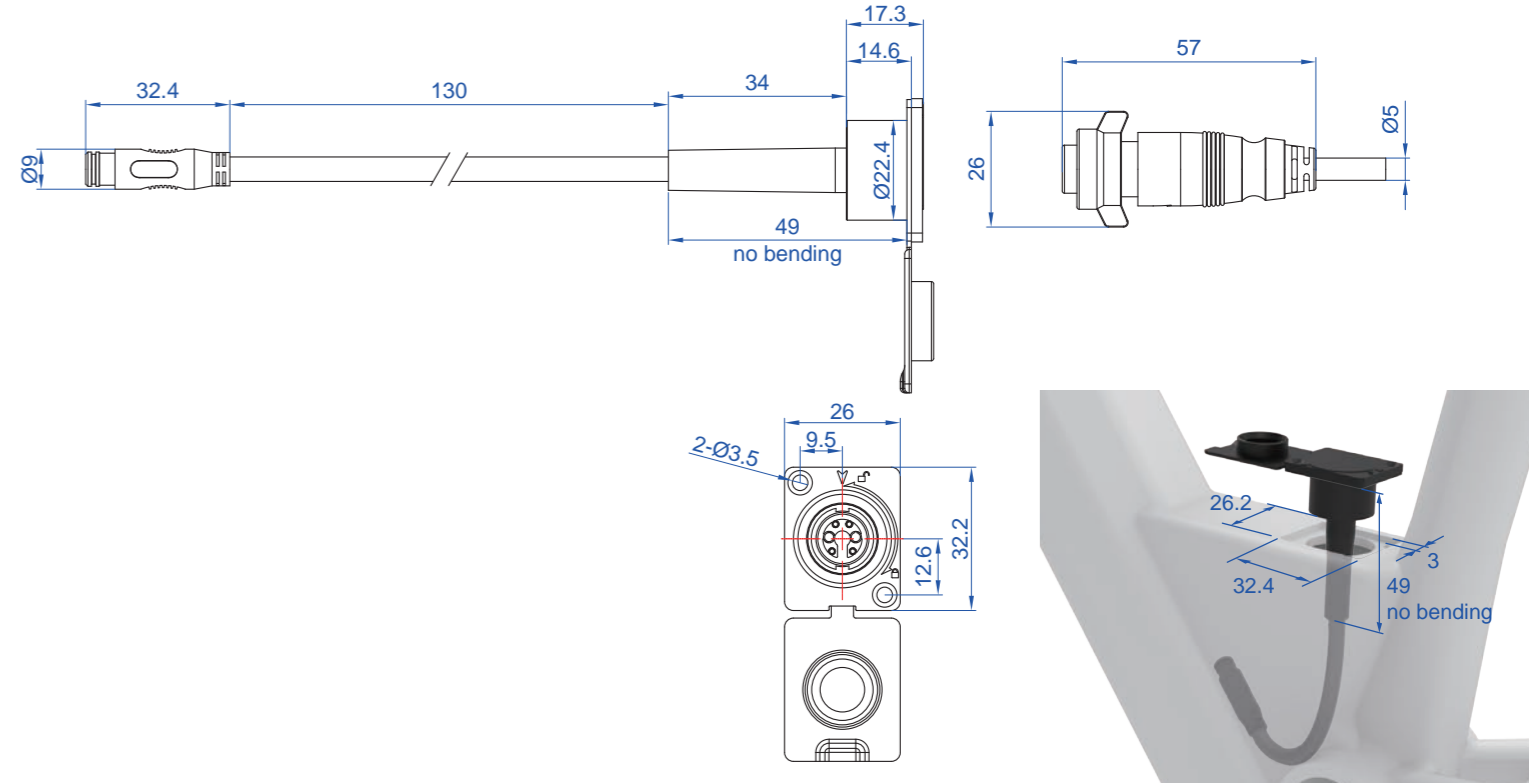
Error report

When system detect malfunction, all LED flash.

5 Charging Port

Charging steps:

After the charger is connected to the charging port, the power level will be displayed by the power button flashing. The charger shows a red light for charging, and a green light for fully charged.



MOBILE APP

A dedicated app for FSA System has been developed, available for both iOS and Android devices, which will enable the rider to record ride and usage statistics, display remaining battery life and charge status, as well as feature full GPS turn-by-turn navigation. The app also features a diagnostic center, complete with chatbot interaction and the facility to communicate directly with FSA's service centers.

BENEFITS

- System status (battery status and motor status)
- System data acquisition
- Route planning tool, plan in advance your route and battery needs
- Navigation road, turn-by-turn navigation with Google Maps
- Navigation off-road, loading your GPS file for off-road routes
- Diagnostic tool, help the consumer to solve most common problems and check the System status
- Health and performance monitoring, track progress even when using System



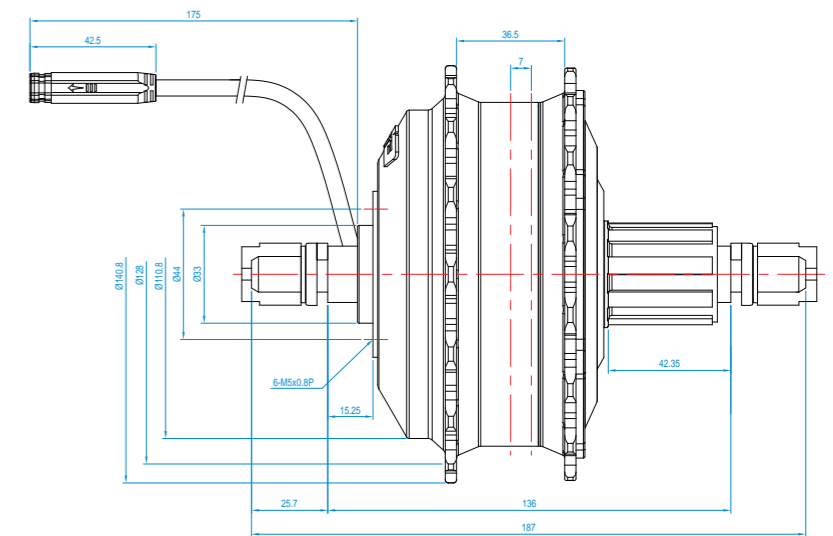
TECHNICAL PERFORMANCE SPECIFICATION

POWER	
Rated Voltage (V)	36(30-42)
Rated Power (W)	250
Rated Rotational Speed (rpm)	201±10
Rated Efficiency (%)	>78%
Magnet Poles	20
Reduction Ratio	1:6.4
Max Output (Nm)	43.01

OTHER	
Power levels	4
Surface Treatment	Black FSA logo
Noise Grade(dB)	<55
Salt Spray Test Standard(h)	96
Ingress Protection	IP65
Certification	ce, rohs

DIMENSION	
Weight (Kg)	2.4
OLD(mm)	135
Wire Form	Shaft end outlet
Spoke Size	12G/13G
Freewheel	Steel cassette
Max Outside Diameter	Φ140.8

SENSOR	
Built-in Torque Sensor	The output voltage: 0.7V-4.8V
Built-in Speed Sensor	Included
Hall Sensor	Included



FSA System certified items for Battery and Controller

Battery		Controller	
Items	Icon	Items	Icon
IEC 62133-2		CE ISO 13849-1	
CE EMC	CE	CE ISO 12100	CE
CE ISO 13849		CE EN 15194	
FCC	FC	CE EN 62368-1	
BSMI		RoHS	RoHS COMPLIANT
UN38.3			

FSA Vision SYSTEM

WHEELS

- FEATURES**
- ISO 6-Bolt
 - Optimized 32h spokes pattern
 - Optimized 32h rear rims
 - Artisan built, entirely by hand
- CLINCHER**
- SMN 10-11sp, Sram XDR 12s
- FREEHUB**
- ISO 6-Bolt rotor mount



Model Name	Model No.	Type
SC40 DB Hub Motor	WH-HM-649CHTL/DB/SL	Road
SC30 DB Hub Motor	WH-HM-659CHTL/DB/SL	Road
Team 35 DB Hub Motor	WH-HM-349CHTL/DB	Road
Team 30 DB Hub Motor	WH-HM-309CHTL/DB	Road
Team 30 i23 DB Hub Motor	WH-HM-329CHTL/DB	Gravel



BEYOND
E-XTRAORDINARY

**FSA NEW REAR HUB
ELECTRIC-ASSIST
MOTOR SYSTEM**

Innovative and compact "FSA System" is designed for road, gravel and commuter e-bikes. The "FSA System" comprises of a rear hub electric-assist motor, a 250Wh battery unit, a further 250Wh expansion battery, with an integrated on-bike control unit and smartphone app.



> **SC40 DB Hub Motor**

WH-HM-649CHTL/DB/SL

FEATURES

- Claim a 150kg system weight
- 40mm depth x 26mm wide carbon rim
- Tubeless compatible
- Alloy hubs with J-bend spoke(rear)
- Front hub with TA12 x 100mm axle compatibility
- Rear hub with O.L.D135mm
- Steel freehub
- 2-cross straight gauge spoke(front)
- Artisanbuilt, entirely by hand
- Optimized 32H rear rim
- ISO 6-bolt
- Intended use: e-Road

SPECIFICATIONS

- SMN 9-11sp or Sram XDR freehub
- Available 700c

FINISH

- Color graphics - black

WEIGHT

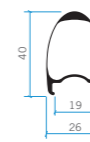
- 4,009 grams / pair (w/o rim tape)



INTENDED USE



ASTM



> **SC30 DB Hub Motor**

WH-HM-659CHTL/DB/SL

FEATURES

- Claim a 150kg system weight
- 35mm depth x 24.8mm wide carbon rim
- Tubeless compatible
- Alloy hubs with J-bend spoke(rear)
- Front hub with TA12 x 100mm axle compatibility
- Rear hub with O.L.D135mm
- Steel freehub
- 2-cross straight gauge spoke(front)
- Artisanbuilt, entirely by hand
- Optimized 32H rear rim
- ISO 6-bolt
- Intended use: e-Road

SPECIFICATIONS

- SMN 9-11sp or Sram XDR freehub
- Available 700c

FINISH

- Color graphics - black

WEIGHT

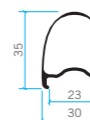
- 3,800 grams / pair (w/o rim tape)



INTENDED USE



ASTM



> **TriMax 30 DB Hub Motor**

WH-HM-609CHTL/DB

FEATURES

- Claim a 150kg system weight
- 30mm depth x 24mm wide alloy rim w/ interspoke milling R06 system
- Tubeless compatible
- Alloy hubs with J-bend spoke(rear)
- Front hub with TA12 x 100mm axle compatibility
- Rear hub with O.L.D135mm
- Steel freehub
- 2-cross straight gauge spoke(front)
- Artisanbuilt, entirely by hand
- Includes tubeless valves
- Optimized 32H rear rim
- ISO 6-bolt
- Intended use: e-Road

SPECIFICATIONS

- SMN 9-11sp or Sram XDR freehub
- Available 700c

FINISH

- Color graphics - black

WEIGHT

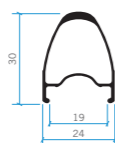
- 4,059 grams / pair (w/o rim tape)



INTENDED USE



ASTM



> **Team 30 DB Hub Motor**

WH-HM-309CHTL/DB

FEATURES

- Claim a 150kg system weight
- 30mm depth x 24mm wide alloy rim
- Tubeless compatible
- Alloy hubs with J-bend spoke(rear)
- Front hub with TA12 x 100mm axle compatibility
- Rear hub with O.L.D135mm
- Steel freehub
- 2-cross straight gauge spoke(front)
- Artisanbuilt, entirely by hand
- Optimized 32H rear rim
- ISO 6-bolt
- Intended use: e-Road

SPECIFICATIONS

- SMN 9-11sp or Sram XDR freehub
- Available 700c

FINISH

- Color graphics - black

WEIGHT

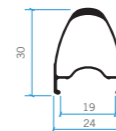
- 4,160 grams / pair (w/o rim tape)



INTENDED USE



ASTM



> **Team 35 DB Hub Motor**

WH-HM-349CHTL/DB

FEATURES

- Claim a 150kg system weight
- 35mm depth x 23.7mm wide alloy rim
- Tubeless compatible
- Alloy hubs with J-bend spoke(rear)
- Front hub with TA12 x 100mm axle compatibility
- Rear hub with O.L.D135mm
- Steel freehub
- 2-cross straight gauge spoke(front)
- Artisanbuilt, entirely by hand
- Optimized 32H rear rim
- ISO 6-bolt
- Intended use: e-Road

SPECIFICATIONS

- SMN 9-11sp or Sram XDR freehub
- Available 700c

FINISH

- Color graphics - black

WEIGHT

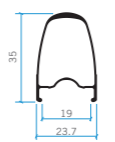
- 4,251 grams / pair (w/o rim tape)



INTENDED USE



ASTM



> **Team 30 i23 DB Hub Motor**

WH-HM-329CHTL/DB

FEATURES

- Claim a 150kg system weight
- 30mm depth x 26.9mm wide alloy rim
- Tubeless compatible
- Alloy hubs with J-bend spoke(rear)
- Front hub with TA12 x 100mm axle compatibility
- Rear hub with O.L.D135mm
- Steel freehub
- 2-cross straight gauge spoke(front)
- Artisanbuilt, entirely by hand
- Optimized 32H rear rim
- ISO 6-bolt
- Intended use: e-Gravel

SPECIFICATIONS

- SMN 9-11sp or Sram XDR freehub
- Available 700c

FINISH

- Color graphics - black

WEIGHT

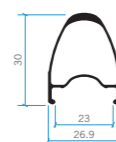
- 4,160 grams / pair (w/o rim tape)


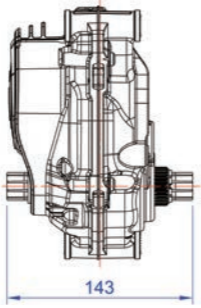
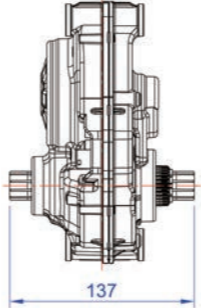
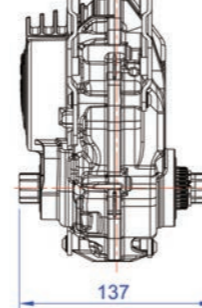
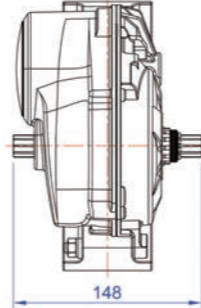
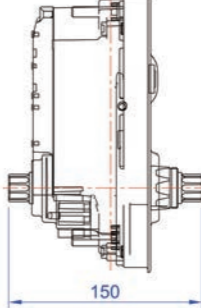
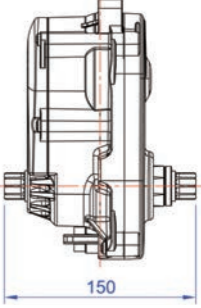























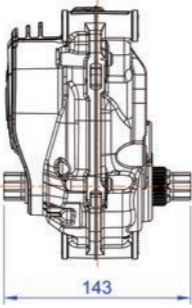
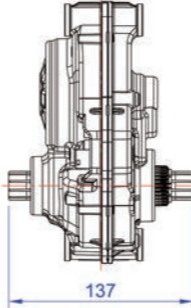
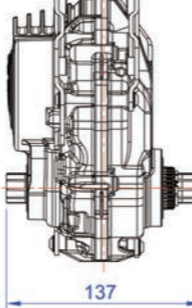
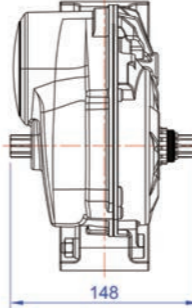
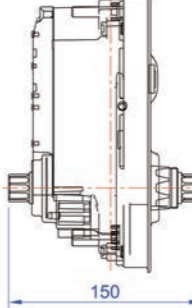
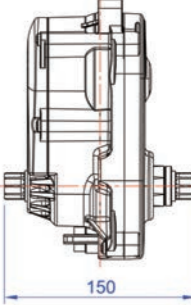
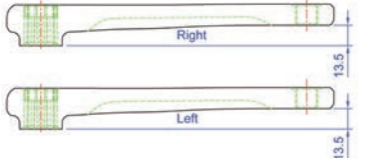
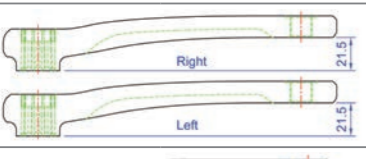
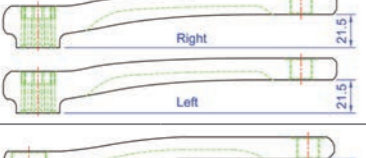
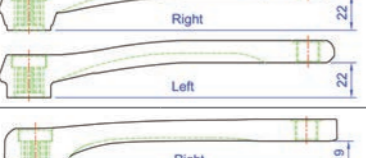
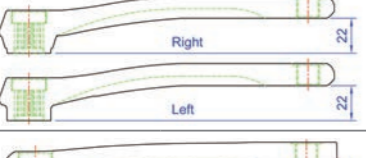
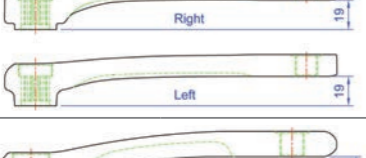
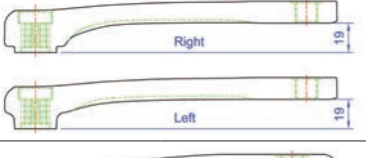
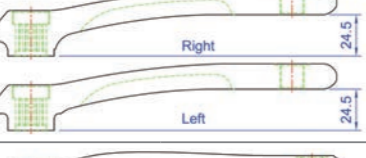
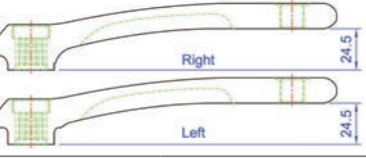
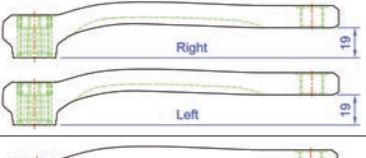
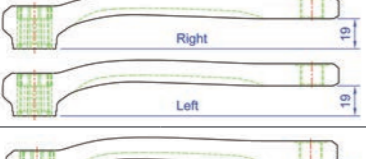
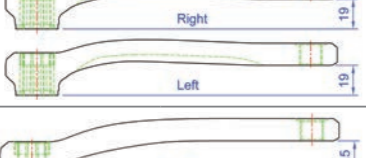
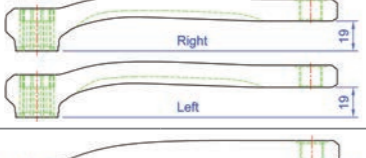
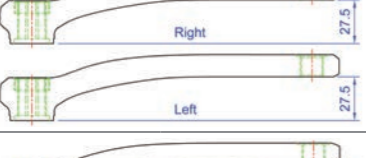
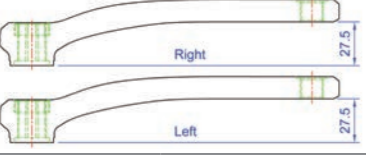
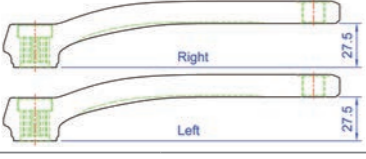
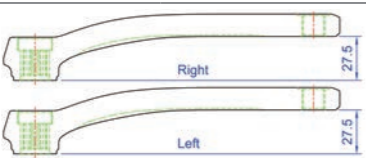
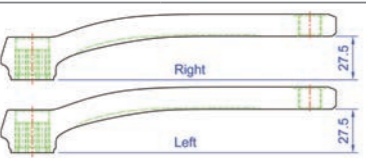
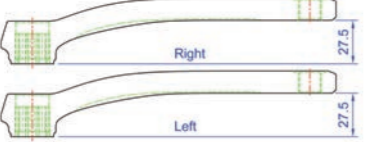

INTENDED USE


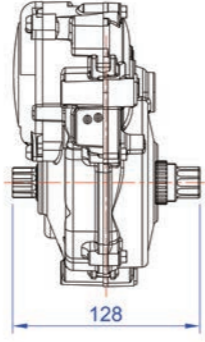
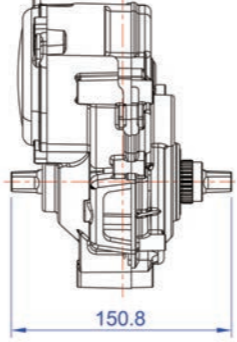
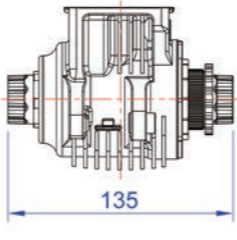
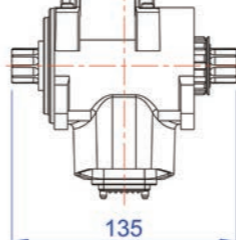
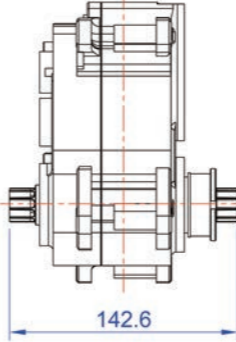
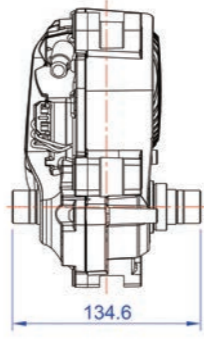
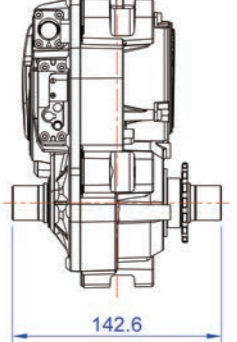
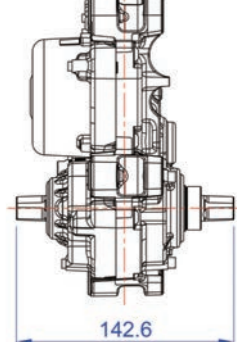
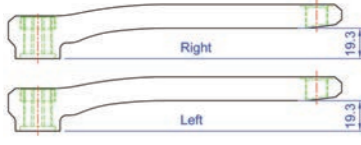
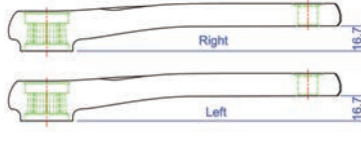
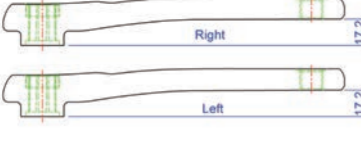
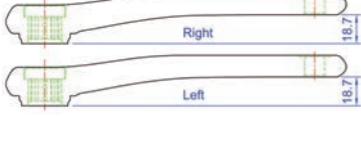
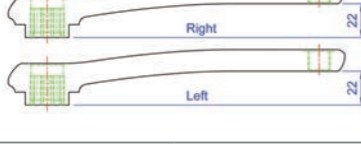
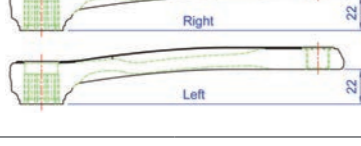
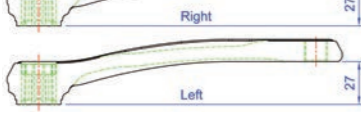



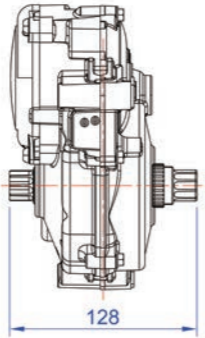
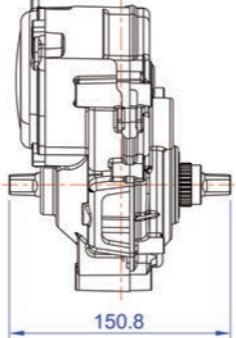
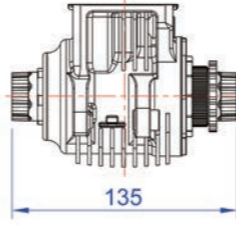
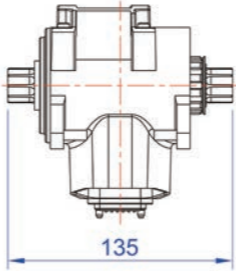
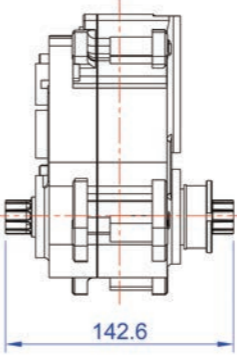
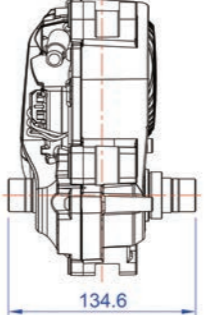
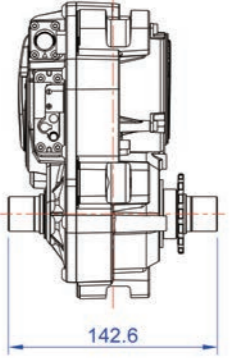
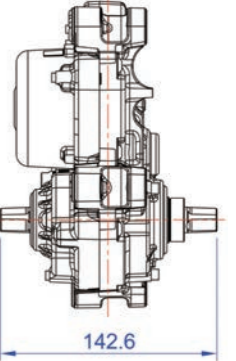


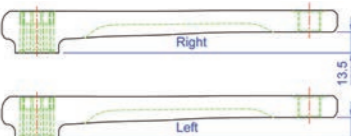

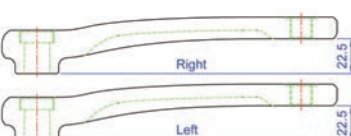
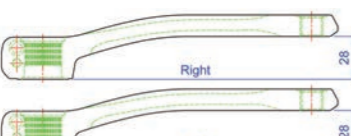
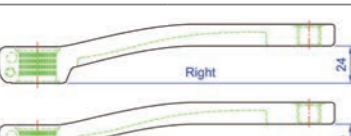

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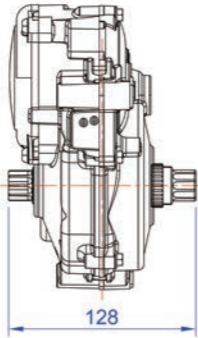
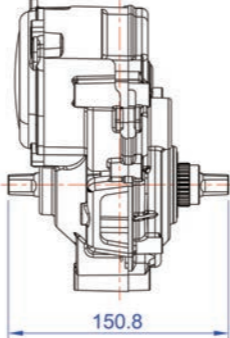
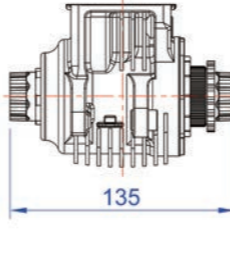
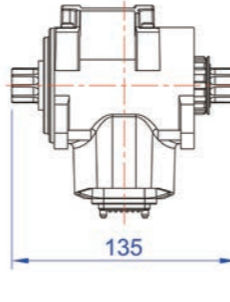
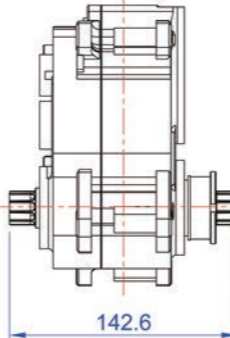
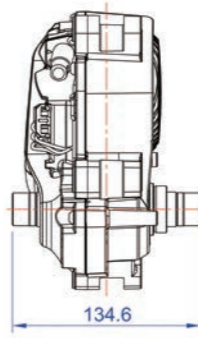
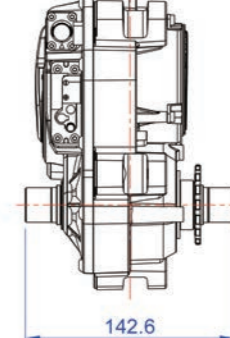
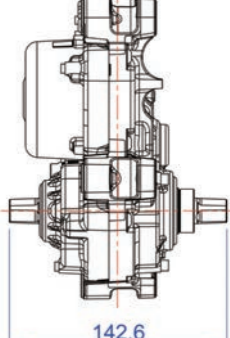
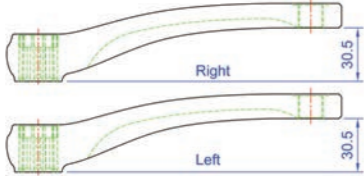
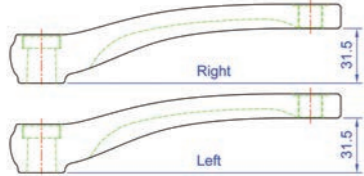
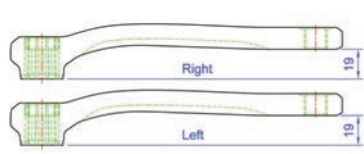
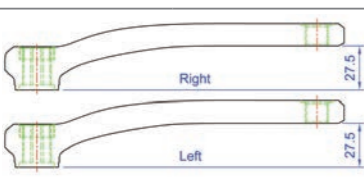
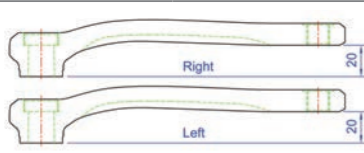
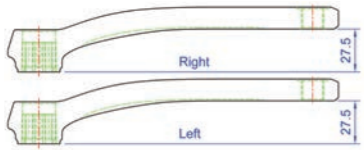
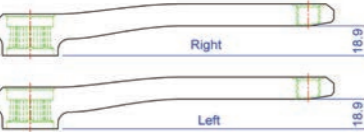
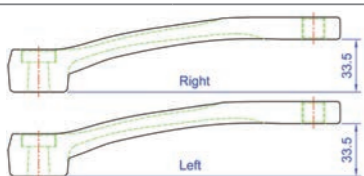



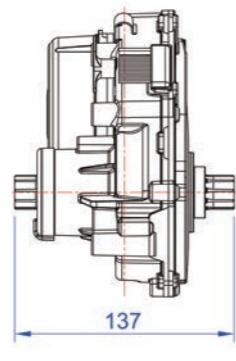
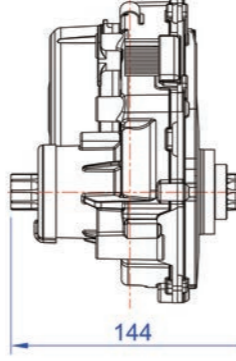
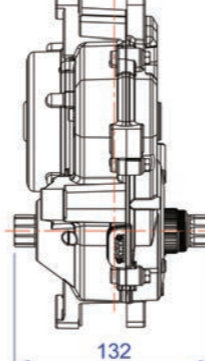
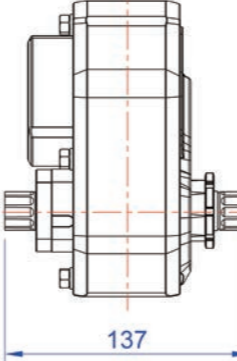
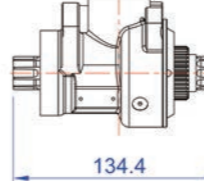
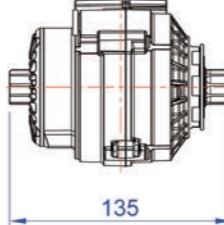
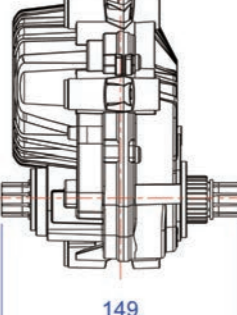
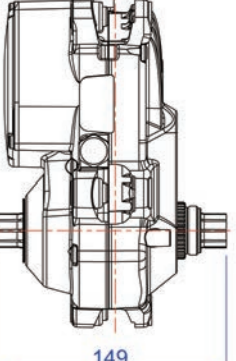
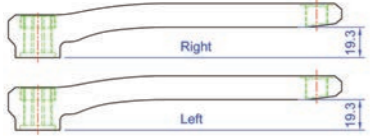
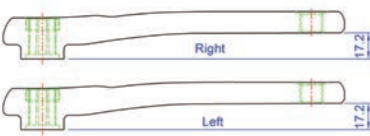
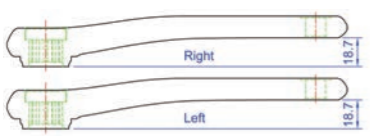
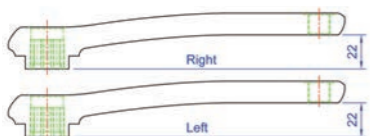
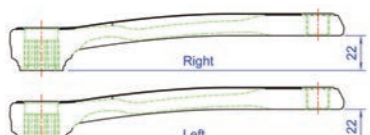
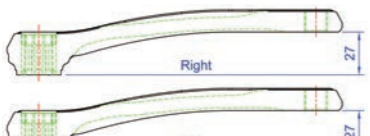
 All FSA cranks for E-bike		E-system	BOSCH BDU38	BOSCH BDU31(SX)	BOSCH Gen 4 / BDU37	BOSCH Gen 3 / BDU33	brose	brose MAG
			 143	 137	 137	 148	 150	 150
		Spindle length	71.5/71.5=143 (ISIS)	68.5/68.5=137 (ISIS)	68.5/68.5=137 (ISIS)	74/74=148 (Gen3)	79/71=150 (ISIS)	75/75=150 (ISIS)
Model number	Cranks shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F
CK-9011/IS CK-9011/IS/SX	 Right 19.3  Left 19.3	179	173	173				
CK-703/IS/SX	 Right 16.7  Left 16.7		167					
CK-702/IS	 Right 22  Left 22	183		177			190	
CK-702/Gen3	 Right 22  Left 22				187			
CK-762/IS CK-762NC/IS	 Right 22  Left 22	183		177			190	
CK-762/IS/wider CK-762NC/IS/wider	 Right 27  Left 27	193		187				
CK-762/Gen3	 Right 22  Left 22				187			
CK-762/Gen3/wider	 Right 27  Left 27				197			
CK-745/IS CK-745/IS/SX	 Right 25.7  Left 25.7	193	184	184				
CK-746/IS	 Right 21.5  Left 13.5					181		


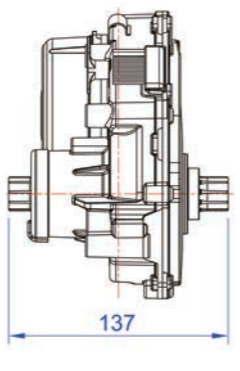
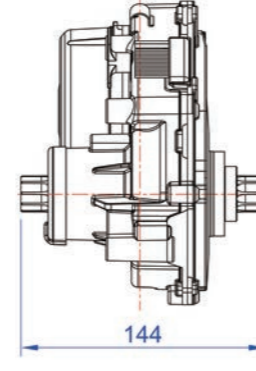
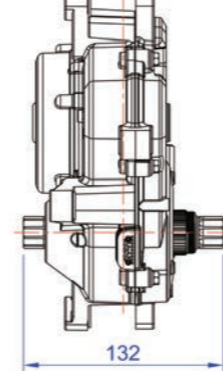
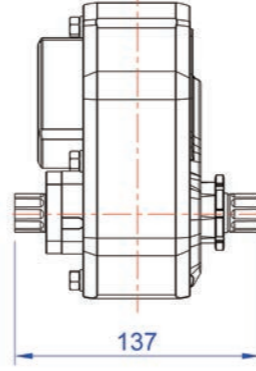
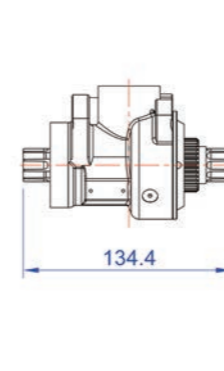
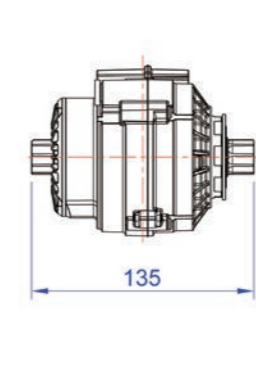
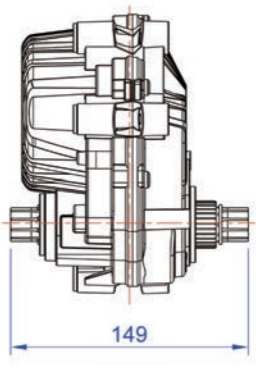
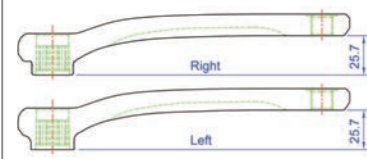
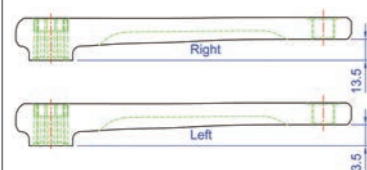
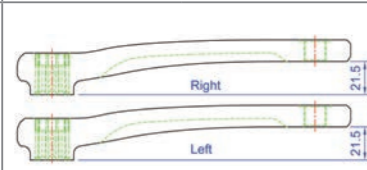
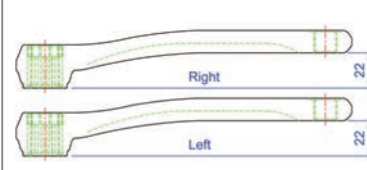
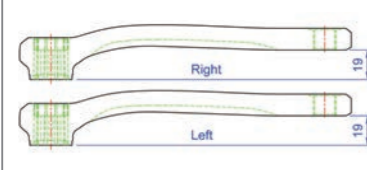
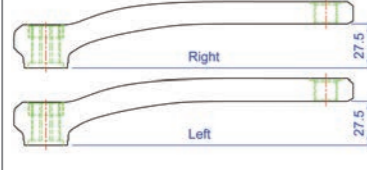
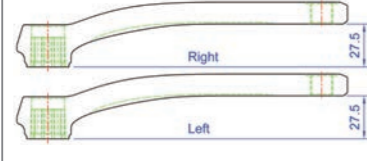
 All FSA cranks for E-bike		E-system	BOSCH BDU38	BOSCH BDU31(SX)	BOSCH Gen 4 / BDU37	BOSCH Gen 3 / BDU33	brose	brose MAG
			 143	 137	 137	 148	 150	 150
		Spindle length	71.5/71.5=143 (ISIS)	68.5/68.5=137 (ISIS)	68.5/68.5=137 (ISIS)	74/74=148 (Gen3)	79/71=150 (ISIS)	75/75=150 (ISIS)
Model number	Cranks shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F
CK-746-1/IS	 Right  Left							173
CK-746-2/IS	 Right  Left							189
CK-602/Gen3	 Right  Left					187		
CK-200/Gen3	 Right  Left					181		
CK-400/Gen3	 Right  Left					194		
CK-220/Gen3	 Right  Left					181		
CK-220/IS CK-220/IS/SX	 Right  Left	177	188	171				184
CK-220/IS/wider CK-220/IS/wider/SX	 Right  Left	194	171	188				
CK-320/Gen3	 Right  Left					198		
CK-320/IS	 Right  Left	197		188				

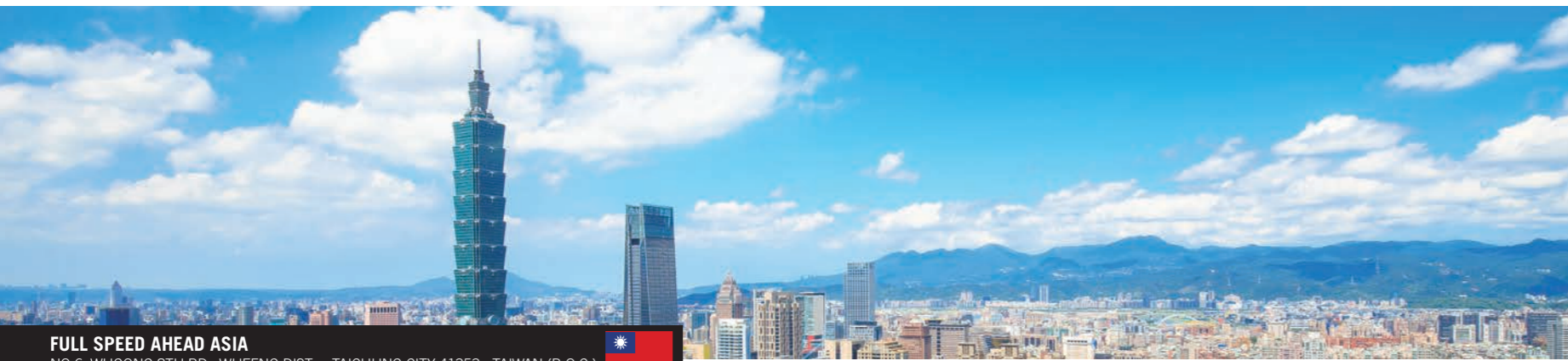
 All FSA cranks for E-bike		E-system	YAMAHA PW-X2 & PW-X3 / PW-S2 / PW-XW	YAMAHA PW series ST / TE / CE / C2	FAZUA Ride 60	FAZUA Ride 50	Nidec B900	SMN EP800	SMN E8000	SMN E5000
			 128	 150.8	 135	 135	 142.6	 134.6	 142.6	 142.6
		Spindle length	64/64=128 (ISIS)	76.2/74.6=150.8 (JIS)	67.5/67.5=135	67.5/67.5=135 (ISIS)	71.3/71.3=144 (ISIS)	67.3/67.3=134.6 (SMN)	71.3/71.3=142.6 (SMN)	71.3/71.3=142.6 (JIS)
Model number	Crank shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F
CK-9011/IS		164			172	179				
CK-703				171						
CK-703/IS						173				
CK-8685-1/IS					169					
CK-702/IS						183				
CK-762/IS CK-762NC/IS		167				183				
CK-762/IS/wider CK-762NC/IS/wider		177								

 All FSA cranks for E-bike		E-system	YAMAHA PW-X2 & PW-X3 / PW-S2 / PW-XW	YAMAHA PW series ST / TE / CE / C2	FAZUA Ride 60	FAZUA Ride 50	Nidec B900	SMN EP800	SMN E8000	SMN E5000
										
			128	150.8	135	135	142.6	134.6	142.6	142.6
		Spindle length	64/64=128 (ISIS)	76.2/74.6=150.8 (JIS)	67.5/67.5=135	67.5/67.5=135 (ISIS)	71.3/71.3=144 (ISIS)	67.3/67.3=134.6 (SMN)	71.3/71.3=142.6 (SMN)	71.3/71.3=142.6 (JIS)
Model number	Crank shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	
CK-745/IS		174				190				
CK-745/JIS									188	
CK-746-1/IS					158					
CK-746-2/IS		166			174					
CK-746-2/JIS			188						180	
CK-751								181		
CK-752							173			
CK-400/IS		174								

 All FSA cranks for E-bike		E-system	YAMAHA PW-X2 & PW-X3 / PW-S2 / PW-XW	YAMAHA PW series ST / TE / CE / C2	FAZUA Ride 60	FAZUA Ride 50	Nidec B900	SMN EP800	SMN E8000	SMN E5000
										
			Spindle length	64/64=128 (ISIS)	76.2/74.6=150.8 (JIS)	67.5/67.5=135	67.5/67.5=135 (ISIS)	71.3/71.3=144 (ISIS)	67.3/67.3=134.6 (SMN)	71.3/71.3=142.6 (SMN)
Model number	Cranks shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F
CK-758/IS		184								
CK-758/JIS			206							198
CK-220/IS		161					177			
CK-220/IS/wider							194			
CK-220/JIS			183							
CK-320/IS		178				174	194			
CK-730				174						
AL-8/JIS			210							202

 All FSA cranks for E-bike		E-system	Polini 137	Polini 144	SACHS	DP M065	maxon	TQ HPR50	OLI	Askoll
			 137	 144	 132	 137	 134.4	 135	 149	 149
		Spindle length	68.5/68.5=137 (ISIS)	70/74=144 (ISIS)	66/66=132 (ISIS)	68.5/68.5=137 (ISIS)	68.3/66.1=134.4 (ISIS)	67.5/67.5=135 (ISIS)	74.5/74.5=149 (ISIS)	77.6/71.4=149 (ISIS)
Model number	Cranks shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F
CK-9011/IS						169	172	184	180	
CK-703/IS						163	165			
CK-8685-1/IS						166	169		182	
CK-702/IS					175	172	175	188	190	
CK-762/IS CK-762NC/IS		177	184	175	175	172	175	188	188	
CK-762/IS/wider CK-762NC/IS/wider			194		185	182	185	198	195	

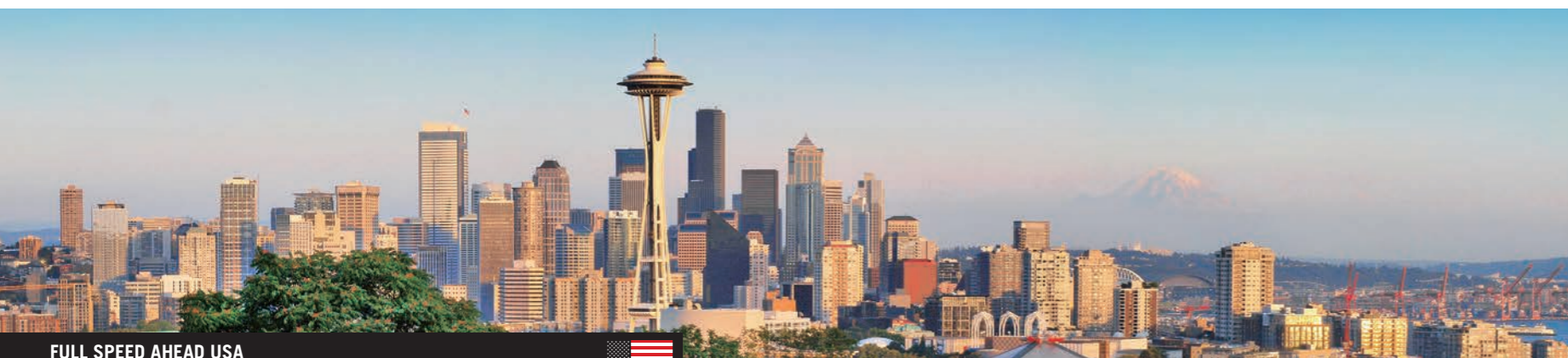
 All FSA cranks for E-bike		E-system		Polini 137	Polini 144	SACHS	DP M065	maxon	TQ HPR50	OLI	Askoll				
		 137		 144		 132		 137		 134.4		 135		 149	
Spindle length		68.5/68.5=137 (ISIS)	70/74=144 (ISIS)	66/66=132 (ISIS)	68.5/68.5=137 (ISIS)	68.3/66.1=134.4 (ISIS)	67.5/67.5=135 (ISIS)	74.5/74.5=149 (ISIS)	77.6/71.4=149 (ISIS)						
Model number	Cranks shape	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F	Q.F				
CK-745/IS				182	182	180	182	195	199						
CK-746-1/IS		160	167	158		155	158		170						
CK-746-2/IS		176	183	174		171	174		186						
CK-758/IS			203												
CK-220/IS		171		169	169		169	182	179						
CK-220/IS/wider					186		186	199	197						
CK-320/IS			195		186		186	199	197						



FULL SPEED AHEAD ASIA
NO.6, WUGONG 8TH RD., WUFENG DIST., - TAICHUNG CITY 41353 - TAIWAN (R.O.C.)



FULL SPEED AHEAD EUROPE
VIA DEL LAVORO, 56 - 20874 BUSNAGO, (MB), ITALY



FULL SPEED AHEAD USA
12212 CYRUS WAY - MUKILTEO, WA 98275-5702



FULL SPEED AHEAD CHINA
ROOM A405, BUILDING 2, NO.88, BAIFU ROAD.,



FOUR OFFICES

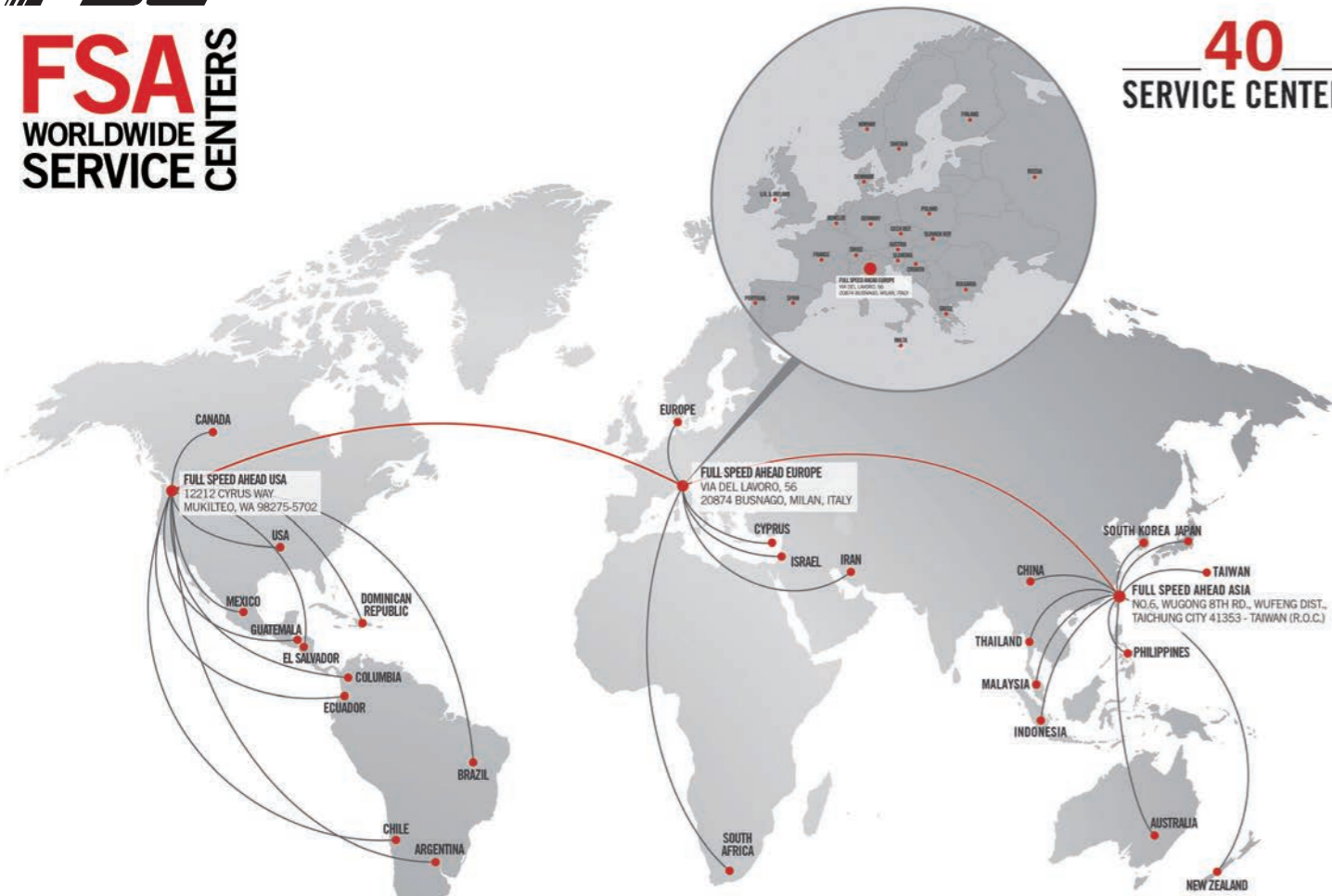
FSA ASIA is located in Taichung, Taiwan, in the “Silicon Valley” of cycling: in fact the headquarters of many important brands of the bike sector are there. FSA Asia sales and marketing office is operational in many Asian fairs as well as in cycling events.

FSA EUROPE is located in Busnago, near Milan, the capital of Lombard. Milan and its outskirts represent the largest industrial area in Italy with many different industrial sectors. The company is the reference point for all European Countries, working with more than 30 distributors located in every part of the Old Continent.

FSA USA is located in the beautiful Pacific Northwest, on the east side of Puget Sound in Mukilteo, WA, close to Seattle, home of Boeing, Microsoft and Amazon. Located in the heart of arguably some of the best off-road riding in the world, FSA-USA HQ serves as the ultimate proving ground for off-road product testing, innovation, and brand development.

FSA CHINA is located in Kunshan in the Jiangsu Province. Kunshan city is considered one of the fastest-growing modern industrial cities in China. Located near Shanghai, a key entrance port in eastern China, Kunshan city is conveniently located for servicing bicycles dealers throughout China.

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SERVICE CENTERS



USA and CANADA

FSA	VISION	COUNTRY	COMPANY NAME	E-MAIL	TEL	COMPANY WEBSITE
x	x	USA	BICYCLE TECHNOLOGIES INTERNATIONAL (BTI)	Info@bti-usa.com	+1 800 558 8324	http://www.bti-usa.com
x	x	USA	QUALITY BICYCLE PRODUCTS (QBP)	customerservice@qbp.com	+1 952 941 9391	http://qbp.com
x	x	USA	HAWLEY, LLC	info-us@hlc.bike	+1 888 522 2453	https://www.hlc.bike/us/
x	x	USA	J&B IMPORTERS, INC.	Info@jimporters.com	+1 800 666 5000	https://www.jbi.bike/site/
x	x	USA	OLYMPIC SUPPLY COMPANY	sales@osco.bike	+1 414 461 8380	http://www.osco.bike/
x	x	USA	KHS, INC.	Info@khsbicycles.com	+1 310 632 7173	http://khsbicycles.com/
x	x	CANADA	ORANGE SPORT SUPPLY, INC.	Info@orangesportsupply.com	+1 877 990 5554	http://www.orangesportsupply.com
x	x	CANADA	CYCLES LAMBERT	Info@cycleslambert.com	+1 888 522 2453	https://www.hlc.bike/ca

CENTRAL & SOUTH AMERICA

FSA	VISION	COUNTRY	COMPANY NAME	E-MAIL	TEL	COMPANY WEBSITE
x	x	BRASIL	DAX BIKE	alancesar@daxbike.com	+55.86.3131.7600	http://www.daxbike.com
	x	BRASIL	CERVELO BRASIL	sac@cervelobr.com	+11 9 9337 5434	http://www.cervelobr.com
x	x	CHILE	INTERBIKES	info@interbikes.cl	+56.9 3436 0304	http://www.interbikes.cl
x	x	COLOMBIA	IMPORTACIONES GRAFAM S.A.S	comercial@grafamsports.com	+57.310.839.6660	https://www.grafamsports.com/
x	x	COSTA RICA	EL SPRINTER	rigobertozuniga@elsprinter.com	506.2241.4818	http://www.elsprinter.com/
x	x	ECUADOR	BASE EXTREME	info@baseextreme.com.ec	+593.7.281.4686	http://www.baseextreme.com.ec/index.aspx
x	x	EL SALVADOR	IMPORNET / PROBIKESV	info@probikesv.com	502.521.6360	http://www.probikesv.com
x	x	GUATEMALA	IMPORNET / PROBIKES BY JOSE	Info@Probikes.Net	502.521.6360	https://www.probikes.net/es/
x	x	JAMAICA	CYCLE CITY & FITNESS, LTD	cyclecity_fitnesscentre@yahoo.com	876.754.7433	https://www.facebook.com/cyclecityandfitness/
x	x	MEXICO	MERCURIO	contactanos@grupomercurio.mx	800 2288 242	https://www.grupomercurio.mx/
x	x	PANAMA	DESARROLLO DEPORTIVO LOS 40, S.A.	desarrollodeportivo40@gmail.com	+507 6050-4513	
x	x	PANAMA	RUFUS LATIN AMERICA INC	natachagrau@rufuslatinamerica.com	+584.14.896.4644	http://www.rufuslatinamerica.com/index.php
x	x	TRINIDAD	MOTORCYCLES ETC	larry.al@motorcycleetc.com	868-693-2754	http://www.motorcycleetc.com/motorcycleetc/
x	x	VENEZUELA	SU BICICLETA	contactanos@subicicleta.com	+58 4143312912	https://subicicleta.com/

EUROPE

FSA	VISION	COUNTRY	COMPANY NAME	E-MAIL	TEL
x	x	BENELUX	CODAGEX	Info@codagex.be	0032 14347474
	x	BULGARIA	MAXCOM LTD.	Aftermarket@sprintmaxcom.com	00359 32600897
x	x	CZECH REP.	DEMA SENICA A.S.	Sport@dema.sk	00421 346945111
x	x	CZECH REP.	VOKOLEK IMPORT - ZOOKEE s.r.o.	info@zookee.cz	+420 461 530 983
x	x	CYPRUS	A & P ANDREOU BROTHERS LTD	Mariap@andreu.com	00357 - 24811031
x		DENMARK	KONGGAARD	Service@konggaard.dk	+45 8722 3306
	x	DENMARK	BJARNE, EGEDESØ A/S	Info@bikersbest.dk	0045 63168001
x	x	ESTONIA	VELOPLUS OÜ	info@veloplus.ee	00372 5070860
	x	FINLAND	BJARNE, EGEDESØ A/S	Info@bikersbest.dk	0045 63168001
x		FINLAND	ONE SPORT	info@onesport.fi	+3458 207691970
x	x	FRANCE	SPORTPULSION	Info@esm-sport.com	0033 0479843680
x		FRANCE	SAVOYE	Info@savoie.fr	00334 74 36 13 77
x		FRANCE	COMET DISTRIBUCIONES COMERCIAL S.A.	fsa@comet.es	0034-943331393
x	x	GERMANY	MERIDA & CENTURION GERMANY GMBH	fsagermany@fullspeedahead.com	0049 07159 9459-30
x	x	GREECE	BIKEFORMANCE	info@bikeformance.gr	0030 2182189414
x		HUNGARY	VELOSSIMO KFT.	velossimo.hu@gmail.com	0036 302212929
x	x	ITALY	RMS S.P.A.	Info@rms.it	0362 27301
x	x	ITALY	CICLO PROMO COMPONENTS S.P.A.	Info@ciclopromo.com	0039-04231996363
x	x	MALTA	MAGRI CYCLES & SPARES	Magriyc@nextgen.net.mt	00356-21414399
x		NORWAY	KONGGAARD	Service@konggaard.dk	+45 8722 3306
	x	NORWAY	BJARNE, EGEDESØ A/S	Info@bikersbest.dk	0045 63168001
x	x	POLAND	DEMA SENICA A.S.	Sport@dema.sk	00421-346945111
x	x	POLAND	FHU POREBA	filip.s@porebarowery.pl	+ 48 12 264 90 24
x	x	PORTUGAL	CICLO COIMBROES	Geral@ciclocoimbroses.com	00351 - 223794461
x	x	ROMANIA	CROSSBIKE	Office@crossbike.ro	0735 151 260
x	x	SLOVAKIA	DEMA SENICA A.S.	Sport@dema.sk	00421-346945111
x	x	RUSSIA	VELOMARKET CSKA	sergey@velomarket-cska.ru	007-4956132938
x	x	SLOVENIA	VEB COMPANY	Veb-company@siol.net	0038-614303922
x	x	SOUTH AFRICA	CAPEGRO SPORTS	fsa@capegrosports.co.za	0027 72 3799074
x	x	SPAIN	COMET DISTRIBUCIONES COMERCIAL S.A.	fsa@comet.es	0034-943331393
	x	SPAIN	BHBIKES EUROPE, S.L.	Alfonso@bhbsa.es	0034-945135202
x		SWEDEN	BOOVE AB	info@boove.se	0046 8 761 0266
x	x	SWISS	BELIMPORT	Daniele@belimport.ch	0041 91 260 35 15
x	x	TURKEY	ACCELL BISIKLET SAN VE TIC AS	aftermarket@accellbisiklet.com.tr	0090 236 213 00 45
x	x	UKRAINE	BIKESPORT LLC	shop@veloplaneta.com.ua	380-991002909
x	x	U.K. & IRELAND	SOLENT	fsa.uk@fullspeedahead.com	0044-2392521912

ASIA PACIFIC

FSA	VISION	COUNTRY	COMPANY NAME	E-MAIL	TEL	COMPANY WEBSITE
x	x	TAIWAN	FSA ASIA	support@fullspeedahead.com.tw	(+886 4 2331 9134	http://www.fullspeedahead.com
x		AUSTRALIA	Advance Traders	sales@advancetraders.com.au	+61 (0) 7 38618900	http://www.advancetraders.com.au/
	x	AUSTRALIA	MCH IMPORTS	info@mchimports.com	1300 783 556	www.mchimports.com
x	x	CHINA	FSA CHINA	daniel@fullspeedahead.com.cn	+86 512 5702 2458	http://www.fullspeedahead.com
x	x	HONG KONG	LOCATION CYCLES LIMITED	info@locationcycles.com	+852 24418628	http://www.locationcycles.com
x	x	INDONESIA	PT. WAHANA INTI UTAMA	customerservice@bab-indonesia.com	+62 21 30052621	http://www.unitedbike.com
x	x	IRAN	ORCHID MEHR SPORTING GOODS GROUP	info@orchid.ir	+98 55390303 21	-
x	x	ISRAEL	D. Z. SYSTEMS LTD	tzahi@dzsystems.co.il	+97 289188983	-
x	x	JAPAN	FUTABA	Zac_r@e-ftb.co.jp	+81-52 5048345	info@e-ftb.co.jp
x	x	JAPAN	PODIUM CO LTD	fsa_vision@podium.co.jp	+81 742643555	fsa_vision@podium.co.jp
	x	MALAYSIA	SA SPORT SDN BHD	yeann@senaik.com	+60 3 3358 6650	http://www.senaik.com/
x		MALAYSIA	SLM	info@slmbicycle.com	+6012 4253369	http://www.slmbicycle.com
x	x	NEW ZEALAND	WIDE OPEN DISTRIBUTORS	sales@wideopen.co.nz	+64 7 3453280	http://www.wideopen.co.nz
x	x	PHILIPPINES	NANOTECH TRADING INC	inquiry@nanotechtradinginc.com	+63 32 2558853	http://www.nanotechtradinginc.com
x	x	SINGAPORE	TRILAB	trilabsg@gmail.com	+65 96254225	https://www.facebook.com/trilabSG/
x	x	SINGAPORE	YAP BICYCLE COMPANIA	chris@yapbicycle.co	+65 91113130	http://www.bikeaid.sg
x	x	SINGAPORE	CHZ Cycling.	info@czinc.cc	+65 8714 1322	https://www.chzycling.cc/
x	x	SOUTH KOREA	WATTS	daniel@watts-sports.com	+82 02 7978279	http://watts-sports.com
x	x	VIETNAM	BIKE LIFE	info@bikelife.com.vn	+84 8 54124217	http://www.bikelife.com.vn/
x	x	UAE	REVOLUTION CYCLES DUBAI	info@rcdxb.com	+971 4 3697441	http://rcdxb.com
x	x	UAE	AL BOOM MARINE	contact@beyondthebeach.com	+971 4 289 4858	http://www.alboommarine.com
x	x	Thailand	Peleton	sakananon.wat@peloton.co.th	02-095-3560	-

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No.	Trademark	Owner
1		ROBERT BOSCH GMBH
2		Brose Fahrzeugteile SE & Co. KG, Coburg
3		YAMAHA CORPORATION
4		Porsche eBike Performance GmbH
5		NIDEC CORPORATION
6		SHIMANO INC.
7		POLINI MOTORI S.p.A.
8		ZF Friedrichshafen AG
9		DP MOTORS CO., LTD.
10		maxon motor ag
11		TQ-Group GmbH
12		OLI S.P.A.
13		ASKOLL HOLDING S.r.l. a socio unico

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No.	Logo	No.	Logo
1		27	
2		28	
3		29	
4		30	
5		31	
6		32	
7		33	
8		34	
9		35	
10		36	
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23		49	
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26		52	
		53	



WARRANTY / PRODUCT CANCELLATION

Under this warranty various FSA and Vision products are covered under different warranties with different warranty periods to the original registered owner only. The warranty posted at www.fullspeedahead.com is the warranty in effect at the time of your purchase.

Full Speed Ahead Worldwide Warranty 2010

As stated in the Directive 1999/44/EC of the European Parliament and of the Council of 25 May 1999 on certain aspects of the sale of consumer goods and associated guarantees, Full Speed Ahead (FSA) warrants all FSA, Vision, Metropolis and RPM products to be free from defects in materials or workmanship for a period of two years after original purchase unless otherwise stated below. This warranty is non-transferable and valid to the original purchaser of the product only. If your product included a written policy in the packaging that differs from the warranty policy posted at www.fullspeedahead.com, the policy at www.fullspeedahead.com is to be considered most current and in effect.

FSA will apply the consumer more favourable obligatory warranty provided by the national laws of the Member State of the European Union, United States of America, or consumer's home country.

Exceptions to the 2 year Warranty:

Headsets: Orbit Xtreme Pro headset models are guaranteed against defects in materials and workmanship for ten years from date of purchase.

- FSA, Vision, Metropolis and RPM products purchased used, or through unauthorized dealers (Online auction or otherwise), or distributor carry NO WARRANTY and are sold as-is.
- FSA, Vision, Metropolis and RPM products that have been modified, neglected or poorly maintained.
- FSA, Vision, Metropolis and RPM products that are purchased used and not in original packaging.
- FSA, Vision, Metropolis and RPM products that have been damaged in shipping.
- FSA, Vision, Metropolis and RPM products that have been used in competition, stunt riding, or for commercial use. This includes bending or breaking components due to the use and abuse of components used for dirt jumping, trials, street or park, downhill and free-riding.
- FSA, Vision, Metropolis and RPM products damaged due to not being properly installed or repaired as recommended by FSA.
- FSA, Vision, Metropolis and RPM damaged from causes other than defects in materials and workmanship such as a user's lack of skill, competence or experience.
- The finish or aesthetics of FSA, Vision, Metropolis and RPM products are not covered under this warranty.
- Normal wear to the product. Components may have symptoms of wear in less than two years depending on amount of use, type of use and other conditions. This includes products that have reached the end of their normal life expectancy.

Bearings: Bearings that fail due to contamination, misuse, improper, or lack of maintenance are not covered under warranty even if failure occurs within two years from date of purchase.

Handlebars: This warranty does not cover bent handlebars or damage due to use of bar ends or clip-on bars. Handlebars may have an effective usable life less than two years depending on amount of use, type of use and other conditions. Cyclists should inspect their handlebars on a regular basis in order to detect damage that may have occurred from normal use or abuse.

Seatposts: Carbon fiber seatposts that have been, cracked, damaged or broken in the area where the seatpost clamp tightens the seatpost are not covered under this warranty.

Cranks: Stripped pedal threads on cranks are not covered under warranty

To Obtain Warranty Service: Eligibility for warranty is determined by FSA warranty/tech personnel. Proof of purchase and delivery date is required to validate warranty period. Please keep your proof of purchase and delivery date. Items returned for warranty determination without proof of purchase will be returned at customer's expense.

It is necessary to return the product to FSA for inspection before any replacement under warranty can be deemed. Only FSA or an Authorized FSA Warranty Service Center may determine if a product is warrantable. If the product is not covered under warranty, all replacement, repair, and shipping costs are responsibility of the customer. At no time may any retailer or distributor make representations of warranty for FSA products without express written permission from FSA. Should a retailer or distributor replace product before consulting FSA, it is at the sole discretion of the retailer or distributor and may not be reimbursed by FSA.

Before returning product to FSA or FSA Warranty Center, follow the instructions below to receive a return authorization (RA) number

Consumers: Claims for warranty must be made through the retail location where the product, or bicycle with FSA original equipment (OEM), was purchased. The retail location should contact FSA or the closest Authorized FSA Warranty Center to obtain a RA number. Proof of purchase and delivery date is required to validate warranty period. Please keep your proof of purchase. The item claimed for warranty must be received by FSA or Authorized FSA Warranty Service Center within 60 days from the issuance of RA number.

Retailers: Contact FSA or an Authorized FSA Warranty Center to obtain an RA (return authorization) number. Send the FSA product with RA number clearly printed on the box, along with a copy of the purchase receipt, or other satisfactory proof of purchase along with delivery date to Full Speed Ahead. Contact the Authorized FSA Warranty Service Center closest to your country of residence for warranty determination. A list of Authorized FSA Distributors/Authorized FSA Warranty Service Centers is posted at www.fullspeedahead.com.

Damage to product during shipping is not covered under warranty. Once received by FSA or Authorized FSA Warranty Service Center, the product will be inspected to determine if it is covered by the FSA warranty policy. After receipt and inspection by FSA warranty personnel and deemed warrantable, FSA will perform the necessary repair or replacement.

In the case where the product is not covered under warranty, FSA will repair the product at customer's expense or offer replacement under the "Crash Replacement Policy". This policy covers a 2 year period following the original purchase date of the product. The crash replacement policy offers replacement of damaged, non-warrantable, non-repairable product at a reduced price. If the customer declines the crash replacement offer or repair service, the customer will need to cover the cost of returning the product. If the customer declines service or replacement offer and the product is deemed unsafe for use, the product will be returned in an unusable condition to guarantee rider safety.

Limits of Warranty

FSA agrees to repair or replace products deemed by FSA to be defective as indicated below. FSA reserves the right to replace product with like replacements that may have graphics or finishing different from the original part. If a part defect arises and a valid claim is received within the Warranty Period, at its option, FSA will either (1) repair the defect at no charge, or (2) exchange the product with a product that is new or which is at least functionally equivalent to the original product. FSA may request that you replace defective parts with new or refurbished user-installable parts that FSA provides in fulfillment of its warranty obligation. Replacement parts assume the remaining duration of the original warranty period, or ninety (90) days from the date of replacement or repair, whichever is longer. When a product or part is exchanged, any replacement item becomes property of the customer and the item replaced becomes property of FSA.

If the repair or the replacement of the warranted product is not possible, or will cost more than the value of the product being repaired, the consumer may ask to receive either a reduction in the price of a replacement product, or the cancellation of the purchase agreement.

In the case of goods sold to commercial entities (Bicycle or bicycle parts retailers, distributors, and their employees) warranty term is limited to one year. Parts re-sold in new condition, to consumers, in the normal process of business, assume the normal warranty terms.

To the extent permitted by law, this warranty and remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, statutory, express or implied. As permitted by applicable law, FSA specifically disclaims any and all statutory or implied warranties, including, without limitation, warranties of merchantability, fitness for a particular purpose and warranties against hidden or latent defects. If FSA cannot lawfully disclaim statutory or implied warranties then to the extent permitted by law, all such warranties shall be limited in duration to the duration of this express warranty and to repair or replacement service as determined by FSA in its sole discretion. No FSA reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Except as provided in this warranty and to the extent permitted by law, FSA is not responsible for direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other legal theory, including but not limited to loss of use; loss of revenue; loss of actual or anticipated profits (including loss of profits on contracts); loss of the use of money; loss of anticipated savings; loss of business; loss of opportunity; loss of goodwill; loss of reputation; loss of, or any indirect or consequential loss.

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FSA Hydraulic Disc Brake Warranty – Addendum to FSA Warranty Policy

Scope: This document contains warranty information related to hydraulic disc brakes. Specifically, common examples of product wear items, manufacture defects and product abuse indicators.

Warranty covers manufacture defects as specified in FSA warranty policy:

- Improper seal installation
- Damaged seals and/or rubber components
- System machining defects
- Friction material separation from backing plate

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