



## WHO WE ARE

The brand Novatec is represented as the high end product of company Joy Industrial Co., LTD. Novatec was established during Year 1989 with outstanding performance and efforts in bicycle hubs and supply to well-known companies all over the world. Every product in Novatec Brand is all made in Taiwan and through out the world.

Novatec is constantly investing and researching the perfect products for the market needs and also focusing on the perfection in every detail of our products. And during 2000, 2004 and 2005, Novatec hub and carbon fiber wheel sets were awarded with SOE (the symbol of excellence honors products from Taiwan that are world-class in excellence and quality) award winning product prize.

Unlike other hub manufacturers, we do not offer an "OK" quality hub to customer, but we take care of the quality as our major target and most important job through out 365 days everyday! And that is who we are!

## HISTORY & AWARDS

### History

- 1971.10** Company Yong Yu established, with 6 employees, area 50 square meters
- 1975** Awarded with Global export award
- 1976** Established Feng-Yuan factory, with area 2,183 square meters and started to produce drum brake hub
- 1982** Company name changed to Joy Industrial Co., LTD, and started to produce 211 steel rear hub
- 1986** Moved from Feng-Yuan factory and set up Ta Ya factory near by Taichung with area 4,614 square meters
- 1987** Awarded with outstanding performance supplier from Giant and Merida companies
- 1989** Novatec Brand established
- 1993.4** Set up Shen Zhen factory in China and Hong Kong office
- 1993.9** Set up Japan office for Japan market
- 1996.10** Awarded with ISO9002 certification and golden global export award
- 1997.10** Germany TUV certification was given for coaster brake products
- 1998.9** Set up Kun Shan factory
- 2001** Established Holland office for European market
- 2002** Awarded with ISO9002 certification
- 2003** TPS was introduced and guided into company
- 2004** Joined and became a member of A-Team organization
- 2005** Established Yong Yu Ironware company in China
- 2006** Awarded with ISO9001 certification

### Awards

- 1996** Awarded with National export award
- 1997** JDM with Giant, awarded with National awards of excellence
- 1999** Novatec magnesium hub Awarded with 8th symbol of excellence (SOE) award
- 2001** Won the 2nd prize of TBEA (Taiwan Bicycle Export Association) mechanical caliper brake system award
- 2003** Carbon Fiber wheelset won the 2003 annual Innovative products competition award 2nd prize of TBEA (Taiwan Bicycle Export Association)
- 2003** Obtained with ISO9001 certification
- 2004** Novatec Carbon Wheelset X-Perti awarded with the 13th of excellence (SOE) award
- 2004** Joined and became a member of A-Team organization
- 2005** Novatec Carbon Wheelset X-Trail awarded with the 14th of excellence (SOE) award
- 2006** Won the prize of SBIR (Small Business Innovation Research) cycling computer system award
- 2006** Won the prize of TBEA cycling computer system award



## INDEX

### ROAD

CARBON HUBS		PAGE
A291CB		4
F292CB	Shim.8/9	4
F292CB-S10	Shim.10	4
F392CB	Campy	4
AS01SB		5
FS12SB	Shim.8/9	5
FS12SB-S10	Shim.10	5
FS22SB	Campy	5
A281SB-CB		6
F282SB-CB	Shim.8/9	6
F282SB-CB-S10	Shim.10	6
F382SB-CB	Campy	6

### AL ALLOY STRAIGHT PULL HUBS

A281SB-AL		7
F282SB-AL	Shim.8/9	7
F282SB-AL-S10	Shim.10	7
F382SB-AL	Campy	7
AS31SB		8
FS32SB	Shim.8/9	8
FS32SB-S10	Shim.10	8
FS42SB	Campy	8
AS81SB		9
FS82SB	Shim.8/9	9
FS82SB-S10	Shim.10	9
FS92SB	Campy	9

### AL ALLOY HUBS

A291SB		10
F292SB	Shim.8/9	10
F292SB-S10	Shim.10	10
F392SB	Campy	10
A271SB		11
F372SB	Shim.8/9	11
F372SB-S10	Shim.10	11
F472SB	Campy	11
A141SB		11
F162SB	Shim.8/9	11
F162SB-S10	Shim.10	11
F262SB	Campy	11
A171SB		12
F172SB	Shim.8/9	12
F172SB-S10	Shim.10	12
F272SB	Campy	12
F192SB	Shim.8/9	12
F472SBT	Campy	12

### AL ALLOY DISC HUBS

D351SB		13
D352SB	Shim.8/9	13
D352SB-S10	Shim.10	13
D452SB	Campy	13

### AL ALLOY TRACK HUBS

A165SBT		14
A166SBT		14
A265SBT		15
A266SBT		15

### MTB

CARBON DISC HUBS		PAGE
DS51SB-CL	Center Lock	18
DS52SB-CL	Center Lock	18
DS51SB		19
DS52SB		19

### ALLOY STRAIGHT PULL DISC HUBS

DS11SB-CL	Center Lock	20
DS12SB-CL	Center Lock	20
DS11SB		21
DS12SB		21

### ALLOY NON DISC HUBS

A021SB		23
F062SB		23
751SB		24
802SB		24
761SB		25
818SB		25

### ALLOY DISC HUBS

D811SB		27
D812SB-QR		27
D041SB-CL	Center Lock	28
D042SB-CL	Center Lock	28
D142SB-CL	Center Lock	28
D041SB		29
D042SB		29
D142SBT		29

### ALLOY ALL MOUNTAIN HUBS - DISC

D361SB-CL	Center Lock	30
D362SB-CL	Center Lock	30
D361SB		31
D362SB		31

### ALLOY DH/FREE RIDE/4X HUBS - DISC

DH61SB-HL		33
D812SB-10		33
D812SB-12		33
DH41SB-CL	Center Lock	34
DH12SB-CL	Center Lock	34
DH41SB		35
DH12SB		35
DH42SB		35

### ALLOY DIRT JUMP HUBS - DISC

D256SBT-14H		36
D252SBT		36

### ALLOY HUBS / 3in1 / - DISC

D661CB / D661SB	Type1	37
D662CB / D662SB	Type1	37
D661CB / D661SB	Type2	38
D662CB / D662SB	Type2	38
D661CB / D661SB	Type3	39
D662CB / D662SB	Type3	39

### BMX

ALLOY DIRT JUMP HUBS / 2in1 /	PAGE
F176SBT-14H	42
F176SBT-14S	42
3D Explosion	43

### ALLOY HUBS - CASSETTE

765SBT	44
F036SBT	44
D066SBT	44

### ALLOY HUBS - FREEWHEEL

A075SBT	45
A076SBT	45
A01CSBT	45
A01ESBT	45

### OTHERS

QUICK RELEASE	PAGE
QUICK RELEASE	46

### ACCESSORY

ACCESSORY	47
-----------	----

### INSTRUCTION - DRAWING

D661SB /3in1/	3D Explosion	48
D662SB /3in1/	3D Explosion	49
A291SB	BOM	50
F292SB	BOM	50
A141SB	BOM	50
F162SB	BOM	51
F192SB	BOM	51
F472SBT	BOM	51
D041SB	BOM	52
D042SB	BOM	52
D142SB	BOM	52
D361SB-CL	BOM	53
D362SB-CL	BOM	53
DH41SB	BOM	54
DH12SB	BOM	54
D256SBT	BOM	54
A291SB	CUT	55
F292SB	CUT	55
A141SB	CUT	55
F162SB	CUT	55
D041SB	CUT	55
D042SB	CUT	55
D361SB-CL	CUT	55
D362SB-CL	CUT	55
F176SBT-14H Drive Unit	CUT	55
F176SBT-14H Cassette	CUT	55

### RACING PHOTO ALBUM - SPONSORING

AGENTS AND LOCATION	58-59
---------------------	-------

### CAUTION!

Do not clean hubs with high pressure water jet.  
Do not use degreaser or other chemicals near rubber seals.

### NOTICE

To unkeep long lifetime of hubs we recommend periodical maintenance.  
To replace the bearings you commend to authorized service.

## SYMBOLS

				FRONT HUB		3 IN 1 ROAD CASSETTE SYSTEM		
				REAR HUB		COMPATIBLE SHIMANO 8/9S		
				GAUGE		COMPATIBLE CAMPAGNOLO 10S		
				SPOKE HOLES		COMPATIBLE SHIMANO 10S		
				SEALED BEARINGS				
				SEALED BEARINGS				

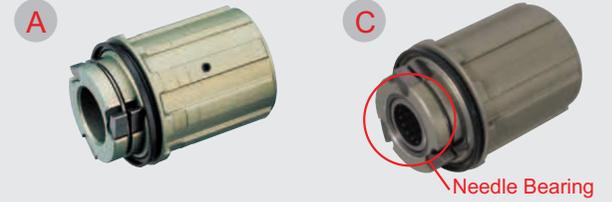


Zoltan Tarjan

[www.tarjanzoltan.com](http://www.tarjanzoltan.com)

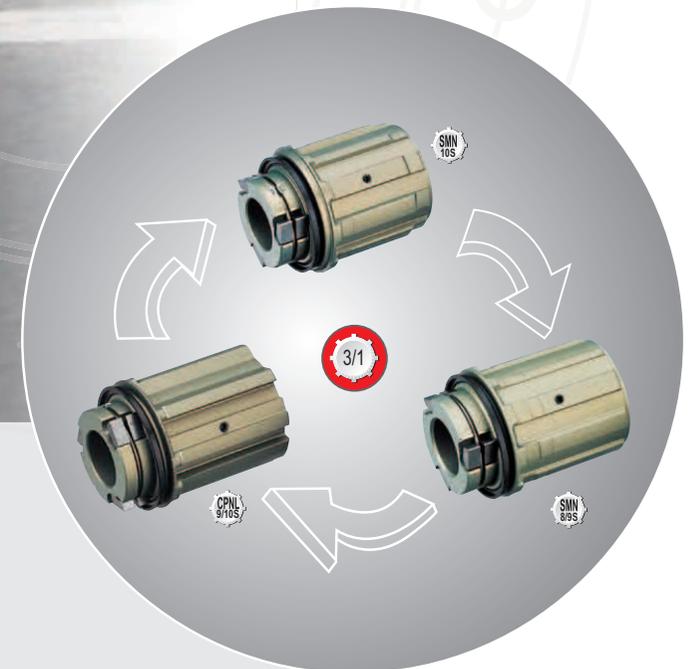
Things I like : Reading, Traveling  
 High : 186 cm  
 Weigh : 71 kg  
 Traveling Type : Supersprinter  
 Started with cycling : 1996

## Compatibility of Cassette Bodies



A/ Standar Cassette Body with 2 Sealed Bearings  
 B/ Special Design with 2 Sealed Bearings and 1 Needle Bearing

## Alloy Cassettes For Road



The 3 in 1 Road ( 4 Sealed Bearings ) Cassette System

\*Side Caps or Washers Needed

## Steel Cassettes For Road



4 Sealed Bearings  
 \*F472SBT



2 Sealed Bearings  
 \*F192SB

RAOD



## Carbon Road Hubs

Aero Spoke Hole Available  
Carbon Fiber with Alloy Combination  
Bearing Smoothness can be Adjusted by Tighten or Loosen Side Caps



## Carbon Road Hubs - Straight Pull

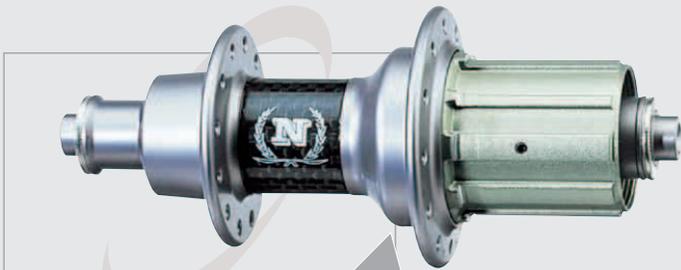
Superb Carbon Fiber Straight Pull Hub  
Aero Spoke Hole Available  
Bearing Smoothness can be Adjusted by Tighten or Loosen Side Caps



<b>FH</b>	<b>A291CB</b>		
Weight	85g	Flange To Flange	68.7mm
Spoke Holes	16 20 24 28	Sealed Bearings	
Gauge	14 15	O.L.D.	100mm
P.C.D.	30mm	Axle	∅9x108mm
		Axle Material	AL



<b>FH</b>	<b>AS01SB</b>		
Weight	87g	O.L.D.	100mm
Spoke Holes	20 24	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
		Axle Material	AL



<b>RH</b>	<b>F292CB</b>	<b>F292CB-S10</b>	<b>F392CB</b>
Weight	296g	Sealed Bearings	14+1NB
Spoke Holes	20 24 28	O.L.D.	130mm
Gauge	14 15	Axle	∅10x140mm
P.C.D.	41/49mm	Axle Material	CRMO
Flange To Flange	50mm	Pawls	3

Option: 269g with Titanium Axle \* 1NB= 1xNeedle Bearing in Cassette Body

<b>RH</b>	<b>FS12SB</b>	<b>FS12SB-S10</b>	<b>FS22SB</b>
Weight	245g	Sealed Bearings	14+1NB
Spoke Holes	20 24 28	O.L.D.	130mm
Gauge	14	Axle	∅10x140mm
Pawls	3	Axle Material	AL



## Carbon Road Hubs - Straight Pull

Specially Machined & Patented Spoke Holes  
Excellent Outlooking  
High / Low Flange Carbon Hub



FH A281SB-CB

Weight	94g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	∅9x108mm
		Axle Material	AL



Washers

RH F282SB-CB F282SB-CB-S10 F382SB-CB

Weight	272g	Sealed Bearings	
Spoke Holes		O.L.D.	130mm
Gauge		Axle	∅10x140mm
Pawls	3	Axle Material	AL



## Alloy Road Hubs - Straight Pull

Specially Machined & Patented Spoke Holes  
Excellent Outlooking  
High / Low Flange Alloy Hub



FH A281SB-AL

Weight	116g	O.L.D.	100mm
Spoke Holes		Sealed Bearings	
Gauge		Axle	∅9x108mm
		Axle Material	AL



Washers

RH F282SB-AL F282SB-AL-S10 F382SB-AL

Weight	273g	Sealed Bearings	
Spoke Holes		O.L.D.	130mm
Gauge		Axle	∅10x140mm
Pawls	3	Axle Material	AL



## Alloy Road Hubs - Straight Pull

Alloy Straight Pull Hub  
Specially Drilled Spoke Holes  
Slim Design



## Alloy Road Hubs - Straight Pull

Specially Machined Flange  
Easy Wheelset Assembly



<b>FH AS31SB</b>			
Weight	128g	Sealed Bearings	
Spoke Holes	20 24 28	O.L.D.	100mm
Gauge	14	Axle	∅9x108mm
		Axle Material	AL



<b>FH AS81SB</b>			
Weight	171g	O.L.D.	100mm
Spoke Holes	20 24	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
		Axle Material	AL



Right Side Cap



Left + Right Side Cap

<b>RH</b>	<b>FS32SB</b>		<b>FS32SB-S10</b>		<b>FS42SB</b>	
Weight		266g	Sealed Bearings			
Spoke Holes	20 24 28		O.L.D.	130mm		
Gauge	14		Axle	∅10x141mm		
Pawls	3		Axle Material	AL		

<b>RH</b>	<b>FS82SB</b>		<b>FS82SB-S10</b>		<b>FS92SB</b>	
Weight		291g	Sealed Bearings			
Spoke Holes	20 24		O.L.D.	130mm		
Gauge	14		Axle	∅10x140mm		
Pawls	3		Axle Material	AL		



# Alloy Road Hubs

Ultra Light Weight Alloy Road Hub  
Aero Spoke Holes Available  
Thin Body Shape



Extra Light Only **82g**

<b>FH A291SB</b>			
Weight	82g	Sealed Bearings	
Spoke Holes	20 24 28	O.L.D.	100mm
Gauge	14 15	Axle	Ø9x108mm
P.C.D.	30mm	Axle Material	AL
		Flange To Flange	68.7mm



**3/1** C  
Right Side Cap

<b>RH F292SB</b>			
Weight	295g	Sealed Bearings	+1NB
Spoke Holes	20 24 28	O.L.D.	130mm
Gauge	14 15	Axle	Ø10x140mm
P.C.D.	41/49mm	Axle Material	CRMO
Pawls	3	Flange To Flange	50mm

Option: 269g with Titanium Axle



# Alloy Road Hubs

<b>FH A271SB</b>			
Weight	112g	O.L.D.	100mm
Spoke Holes	20 24	Sealed Bearings	
Gauge	14	Axle	Ø9x108mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	72mm



**3/1** A  
Left + Right Side Cap

<b>RH F372SB</b>			
Weight	276g	Sealed Bearings	
Spoke Holes	20 24	O.L.D.	130mm
Gauge	14	Axle	Ø10x140mm
P.C.D.	49mm	Axle Material	AL
Pawls	3	Flange To Flange	50mm

<b>FH A141SB</b>			
Weight	120g	O.L.D.	100mm
Spoke Holes	24 28 32	Sealed Bearings	
Gauge	14	Axle	Ø9x108mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	72mm



**3/1** A  
Right Side Cap

<b>RH F162SB</b>			
Weight	294g	Sealed Bearings	
Spoke Holes	20 24	O.L.D.	130mm
Gauge	14	Axle	Ø10x140mm
P.C.D.	49mm	Axle Material	AL
Pawls	3	Flange To Flange	57mm





## Alloy Road Hubs

Classical Hub Design  
Smooth Outlooking  
Aero Spoke Hole Available



### FH A171SB

Weight	116g	O.L.D.	100mm
Spoke Holes	24 28 32	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	72mm



Left + Right Side Cap

### RH F172SB SMN 8/95 F172SB-S10 SMN 105 F272SB CPNL 9/105

Weight	296g	Sealed Bearings	
Spoke Holes	24 28 32	O.L.D.	130mm
Gauge	14	Axle	∅10x140mm
P.C.D.	49mm	Axle Material	AL
Pawls	3	Flange To Flange	57mm



### RH F192SB SMN 8/95

Weight	377g	O.L.D.	130mm
Spoke Holes	24 28 32	Sealed Bearings	
Gauge	14	Axle	∅10x140mm
P.C.D.	45mm	Axle Material	CRMO
Pawls	2	Flange To Flange	50mm



### RH F472SBT CPNL 9/105

Weight	391g	Sealed Bearings	
Spoke Holes	24 28 32	O.L.D.	130mm
Gauge	14	Axle	∅10x140mm
P.C.D.	49mm	Axle Material	CRMO
Pawls	3	Flange To Flange	50mm



## Alloy Road Hubs - Disc

Fashion and Light Weight Design



### FH D351SB

Weight	189g	O.L.D.	100mm
Spoke Holes	32 36	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
P.C.D.	58mm	Axle Material	AL
		Flange To Flange	62mm



Right Side Cap

### RH D352SB SMN 8/95 D352SB-S10 SMN 105 D452SB CPNL 9/105

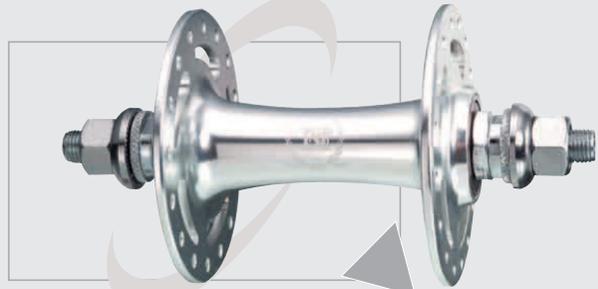
Weight	305g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	130mm
Gauge	14	Axle	∅10x140mm
P.C.D.	58mm	Axle Material	AL
Pawls	3	Flange To Flange	52.1mm





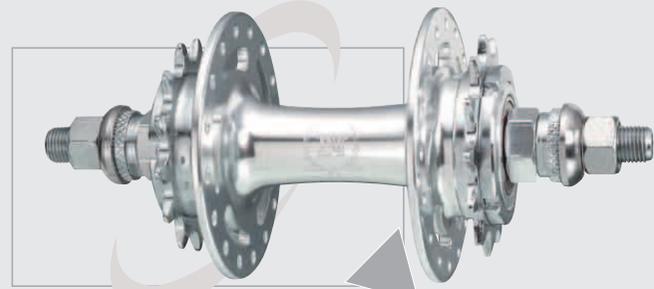
## Alloy Track Hubs

Classical Track Hub Design With Superb Rotation  
Large Flange Design



**FH A165SBT**

Weight	186g	Sealed Bearings	
Spoke Holes	20 32 36	O.L.D.	100mm
Gauge	14	Axle	Ø9x140mm
P.C.D.	62mm	Axle Material	AL
		Flange To Flange	70mm



**RH A166SBT**

Weight	235g	Sealed Bearings	
Spoke Holes	24 32 36	O.L.D.	120mm
Gauge	14	Axle	Ø10x165mm
P.C.D.	62mm	Axle Material	AL
		Flange To Flange	59mm



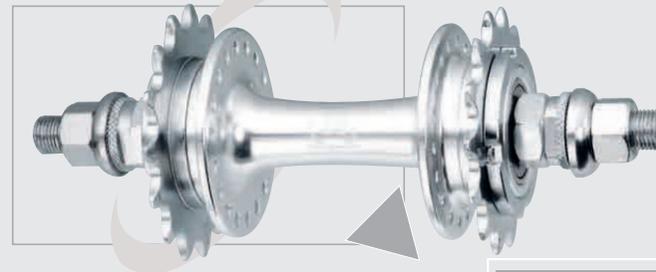
## Alloy Track Hubs

Classical Track Hub Design With Superb Rotation  
Small Flange Design



**FH A265SBT**

Weight	157g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	100mm
Gauge	14	Axle	Ø9x140mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	68mm



**RH A266SBT**

Weight	217g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	120mm
Gauge	14	Axle	Ø10x165mm
P.C.D.	43.5mm	Axle Material	AL
		Flange To Flange	60mm

### Sprockets



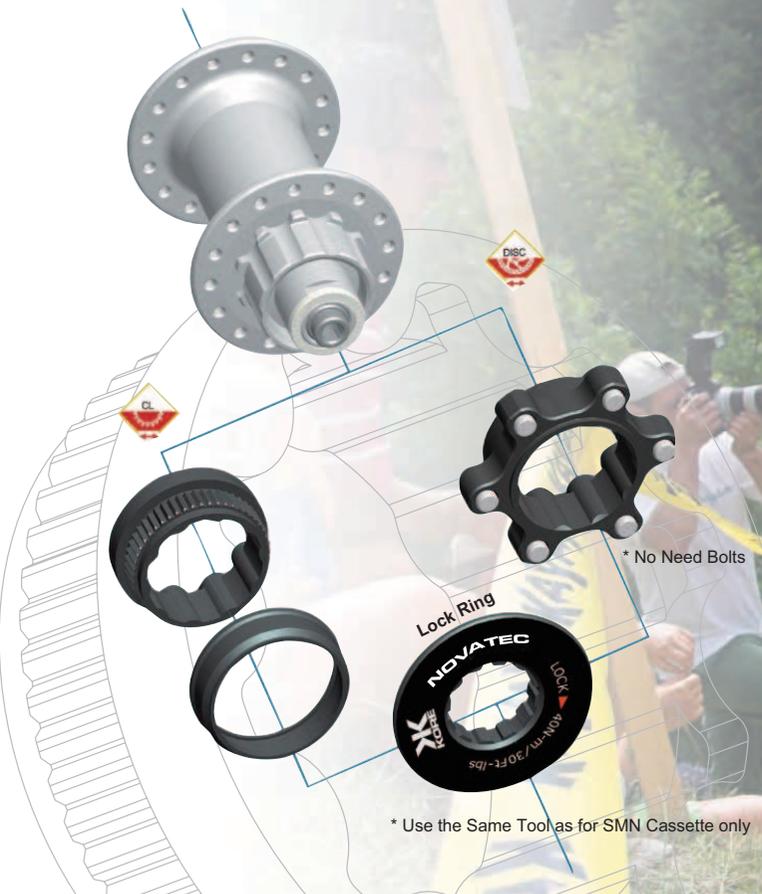
Thickness	13T	14T	15T	16T	17T	18T
2.3mm/ 3 /32"	500090	500059	500058	500072	506027	506026

### Sprockets

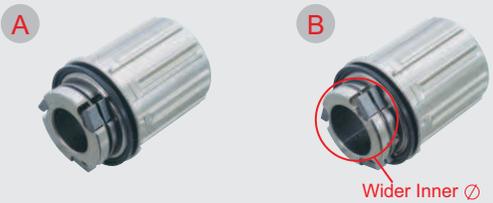


Thickness	13T	14T	15T	16T	17T	18T
2.8mm/ 1 /8"	500054	500060	500053	500052	-	506025

## The Compatible Center Lock System & Exchangable With International 6 Bolts Disc System



### Compatibility of Cassette Bodies



Inner diameter of cassette body is refer to the use of axle Ø .



**JANKA STEVKOVA**

Slovak National Champion  
Member of Slovak National XC Team  
She Attended Olympic Games 2004 in Athens

Photo taken by Peter Mihalovic

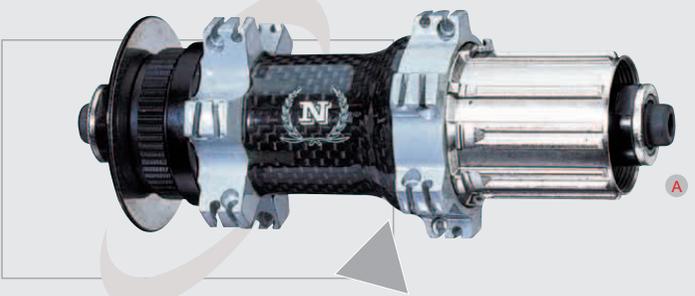


### Carbon MTB Hubs - Disc - Straight Pull

Compatible To Shimano Center Lock System  
 Exchangeable To International 6 Bolts Disc System  
 Specially Machined Flange For Straight Pull  
 Available Cassettes Aluminium / Light Steel



<b>FH DS51SB-CL</b>			
Weight	207g	O.L.D.	100mm
Spoke Holes	24 28	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
		Axle Material	AL

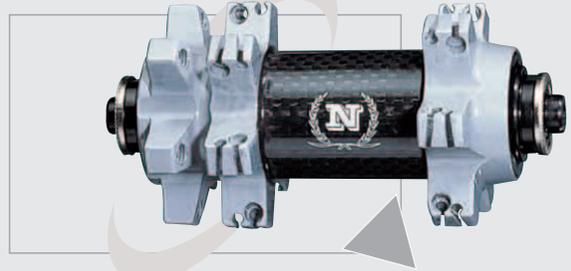


<b>RH DS52SB-CL</b>			
Weight	Light Steel / 472g	Gauge	14
	Aluminium / 395g	Sealed Bearings	
O.L.D.	135mm	Spoke Holes	24 28
Pawls	3	Axle	∅10x145mm
		Axle Material	CRMO

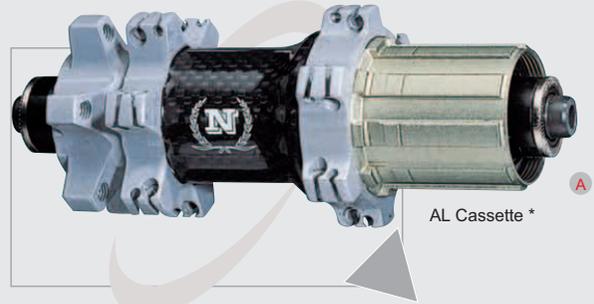


### Carbon MTB Hubs - Disc - Straight Pull

Specially Machined Flange For Straight Pull  
 Available Cassettes Aluminium / Light Steel  
 For High Comfort Tighten Bearings by Side Caps  
 For High Comfort Adjust Tightening Strength of Bearings by Side Caps



<b>FH DS51SB</b>			
Weight	190g	O.L.D.	100mm
Spoke Holes	24	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
		Axle Material	AL



<b>RH DS52SB</b>			
AL Axle and AL Cass.Body / 299g			
Weight	Light Steel / 445g	Gauge	14
	Aluminium / 369g	Sealed Bearings	
O.L.D.	135mm	Spoke Holes	24
Pawls	3	Axle	∅10x145mm
		Axle Material	CRMO

\*NOTE : Alloy Axle and Cassette Body Have Lighter Weight but Lower Durability Than Steel !

\*NOTE: Alloy Axle and Cassette Body Have Lighter Weight but Lower Durability Than Steel !



### Alloy MTB Hubs - Disc - Straight Pull

Compatible To Shimano Center Lock System  
 Exchangeable To International 6 Bolts Disc System  
 Specially Machined Flange  
 Available Cassettes Aluminium / Light Steel



<b>FH DS11SB-CL</b>			
Weight	213g	O.L.D.	100mm
Spoke Holes	24 28	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
		Axle Material	AL



<b>RH DS12SB-CL</b>			
Weight	Light Steel / 475g	Gauge	14
	Aluminium / 398g	Sealed Bearings	
O.L.D.	135mm	Spoke Holes	24 28
Axle	∅10x145mm	Axle Material	CRMO
Pawls	3		

\*NOTE : Alloy Cassette Body has Lighter Weight but Shorter Durability than Titanium or Steel !



### Alloy MTB Hubs - Disc - Straight Pull

Specially Machined Flange For Straight Pull  
 Available Cassettes Aluminium / Light Steel  
 For High Comfort Adjust Strength of Bearings by Side Caps



<b>FH DS11SB</b>			
Weight	191g	O.L.D.	100mm
Spoke Holes	24	Sealed Bearings	
Gauge	14	Axle	∅9x108mm
		Axle Material	AL



<b>RH DS12SB</b>			
Weight	Light Steel / 448g	Gauge	14
	Aluminium / 371g	Sealed Bearings	
O.L.D.	135mm	Spoke Holes	24
Axle	∅10x145mm	Axle Material	CRMO
Pawls	3		

\*NOTE : Alloy Cassette Body has Lighter Weight but Shorter Durability than Titanium Steel !



## Alloy MTB Hubs - Non Disc

Classical Hub Design  
 Aero Spoke Hole Available  
 Aluminium Cassette Body Available With 60g Less



<b>FH</b>	<b>A021SB</b>		
Weight	140g	Sealed Bearings	
Spoke Holes	24 28 32 36	O.L.D.	100mm
Gauge	14	Axle	∅9x108mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	72mm



<b>RH</b>	<b>F062SB</b>		
Weight	436g	Sealed Bearings	
Spoke Holes	24 28 32 36	O.L.D.	135mm
Gauge	14	Axle	∅10x145mm
P.C.D.	49mm	Axle Material	CRMO
Pawls	3	Flange To Flange	57mm



**Outsitzer-Novatec Team**  
 Found in year 2006  
 Team Manager : Tomas Legnavsky  
 Background : Coach of Slovak National XC Team

NONDISC

\*NOTE : Alloy Cassette Body has Lower Durability than Light Steel Cassette!



## Alloy MTB Hubs - Non Disc

Classical Hub Design  
Aero Spoke Hole Available



## Alloy MTB Hubs - Non Disc

Classical Hub Design  
Aero Spoke Hole Available



<b>FH</b>	<b>751SB</b>		
Weight	141g	Sealed Bearings	
Spoke Holes	24 28 32 36	O.L.D.	100mm
Gauge	14	Axle	Ø9x108mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	72mm



<b>FH</b>	<b>761SB</b>		
Weight	140g	Sealed Bearings	
Spoke Holes	24 28 32 36	O.L.D.	100mm
Gauge	14	Axle	Ø9x108mm
P.C.D.	38mm	Axle Material	AL
		Flange To Flange	72mm



<b>RH</b>	<b>802SB</b>		
Weight	405g	Sealed Bearings	
Spoke Holes	24 28 32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10x145mm
P.C.D.	45mm	Axle Material	CRMO
Pawls	2	Flange To Flange	57mm



<b>RH</b>	<b>818SB</b>		
Weight	405g	Sealed Bearings	
Spoke Holes	24 28 32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10x145mm
P.C.D.	45mm	Axle Material	CRMO
Pawls	2	Flange To Flange	57mm



**Filip Polc** [www.filippolc.sk](http://www.filippolc.sk)

Things I like : Traveling, Snowscoot

High : 178 cm

Weigh : 68 kg

Rider Type : DownHill / 4X

Started with competition : From 4 years old

MTB-DISC



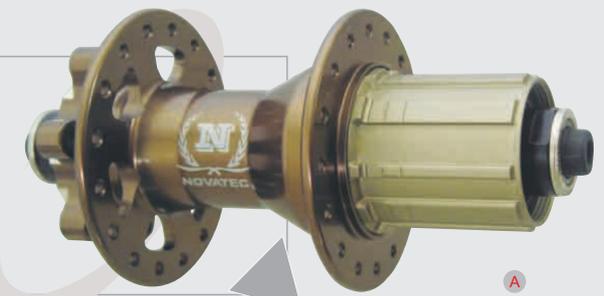
## Alloy MTB Hubs - Disc

New Light Weight Design MTB/XC Hubs  
Fashion Outlooking  
Rear Hub With Light Weight Version Available



<b>FH D811SB</b>			
Weight	191g	O.L.D.	100mm
Spoke Holes	28 32 36	Sealed Bearings	
Gauge	14	Axle	Ø9x108mm
P.C.D.	58/45mm	Axle Material	AL
		Flange To Flange	60.4mm

\* Reference Pantone Colour : 8622C



<b>RH D812SB-QR</b>			AL Axle and AL Cass.Body / 298g
Weight (w/Cass Body)	Light Steel / 446g Aluminium / 368g	O.L.D.	135mm
Spoke Holes	28 32 36	Sealed Bearings	
Gauge	14	Axle	Ø10x145mm
P.C.D.	58/54mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm
			<b>D812SB-HL For Light Steel Cassette</b>

\* Reference Pantone Colour : 8622C

\*NOTE: Alloy Axle and Cassette Body has Lower Durability as Light Steel !

We recommend for short time using only.

MTB & XC



## Alloy MTB Hubs - Disc

Compatible To Shimano Center Lock System  
Exchangeable To International 6 Bolts Disc Rotor  
Center Lock Diameter = 51.3mm



FH D041SB-CL

Weight	197g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	100mm
Gauge	14	Axle	Ø9x108mm
P.C.D.	45mm	Axle Material	AL
Flange To Flange	60.6mm		



RH D042SB-CL

Weight	473g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10x145mm
P.C.D.	38mm	Axle Material	CRMO
Flange To Flange	56.9mm	Pawls	3



RH D142SB-CL

Weight	428g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10x145mm
P.C.D.	45mm	Axle Material	CRMO
Flange To Flange	56.9mm	Pawls	2



## Alloy MTB Hubs - Disc

Compatible To International 6 Bolts Disc Rotor  
Classical MTB CX Disc Hub  
Aluminium Cassette Body Available



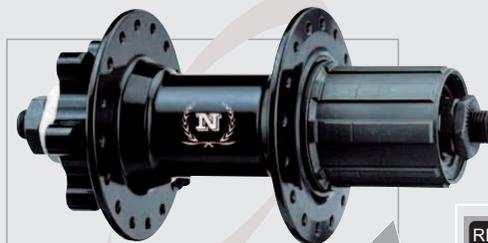
FH D041SB

Weight	213g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	100mm
Gauge	14	Axle	Ø9x108mm
P.C.D.	58mm	Axle Material	AL
Flange To Flange	62mm		



RH D042SB

Weight	491g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10x145mm
P.C.D.	58mm	Axle Material	CRMO
Flange To Flange	58.4mm	Pawls	3



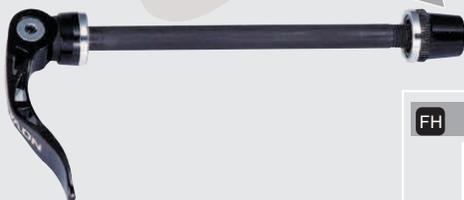
RH D142SBT

Weight	460g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10x145mm
P.C.D.	58mm	Axle Material	CRMO
Flange To Flange	59mm	Pawls	2



## Alloy All Mountain Hubs - Disc

Compatible To Shimano Center Lock System  
 Exchangeable To International 6 Bolts Disc Rotor  
 Center Lock Diameter is 51.3mm  
 Thru Hollow QR & Nutted Type Available



### FH D361SB-CL

Weight	226g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	∅9mm
P.C.D.	45mm	Axle Material	AL
Flange To Flange	61mm		



### RH D362SB-CL

Weight	464g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	∅10mm
P.C.D.	49mm	Axle Material	CRMO
Flange To Flange	56.9mm	Pawls	3



## Alloy All Mountain Hubs - Disc

Compatible To International 6 Bolts Disc Rotor  
 All Mountain Disc Hub  
 Thru Hollow QR & Nutted Type Available



\* Hollow Axle

### FH D361SB

Weight	235g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	∅9mm
P.C.D.	58mm	Axle Material	AL
Flange To Flange	62mm		



### RH D362SB

Weight	463g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	∅10mm
P.C.D.	58mm	Axle Material	CRMO
Flange To Flange	58.4mm	Pawls	3



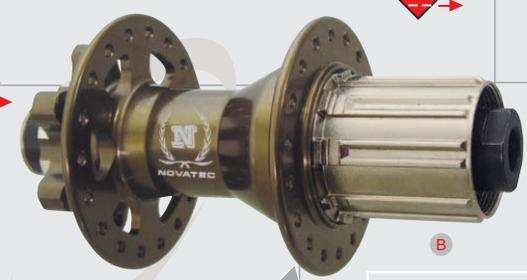
## Alloy Downhill / Freeride Hubs - Disc

Light and Fashion Design  
 Alloy Cassette Body Available  
 Down Hill Disc Rear Hub with O.L.D. 135mm

### FH DH61SB-HL

Weight	185g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	110mm
Gauge	14	Axle	Ø20mm
P.C.D.	58/45mm	Flange To Flange	60.4mm

\* Reference Colour : 8622C



B

### RH D812SB-10

Weight	436g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	Ø10mm
P.C.D.	54/58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm

\* Reference Pantone Colour : 8622C



B

### RH D812SB-12

Weight	400g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	Ø12mm
P.C.D.	54/58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm

\* Reference Pantone Colour : 8622C



### GRAVITY GROUP

GRAVITY GROUP Team was  
 Founded in Austria in 2006  
 Professional DH/4X Team  
 6th in DH UCI Ranking 2006  
 4th in 4X UCI Ranking 2006

DOWNHILL



### Alloy DH / Free Ride Hubs - Disc

Compatible To Shimano Center Lock System  
Down Hill Disc Hub  
Center Lock Dimension 56mm



Not Included



20mm Thru Axle

#### FH DH41SB-CL

Weight	288g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	110mm
Gauge	14	Axle	Ø20mm
P.C.D.	58mm	Flange To Flange	60.4mm



#### RH DH12SB-CL

Weight	494g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	150mm
Gauge	14	Axle	Ø12mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	74.45mm

Specification	Axle Material
M12 x (202)	SCM415



Not Included



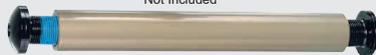
### Alloy DH / Free Ride Hubs - Disc

Compatible To International 6 Bolts Disc Rotor  
Down Hill Disc Hub  
O.L.D. 150mm / 165mm For Rear Hub

#### FH DH41SB

Weight	261g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	110mm
Gauge	14	Axle	Ø20mm
P.C.D.	58mm	Flange To Flange	60.4mm

Not Included



#### RH DH12SB

Weight	492g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	150mm
Gauge	14	Axle	Ø12mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	74.45mm

Not Included

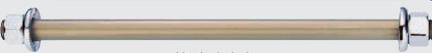


Specification	Axle Material
M12 x (202)	SCM415

#### RH DH42SB

Weight	526g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	165mm
Gauge	14	Axle	Ø12mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	87.7mm

Not Included



Specification	Axle Material
M12 x (215)	SCM415



### Alloy Dirt Jump Hubs - Disc

O.L.D. 135mm  
Single Speed Cassette Dirt Jump Hub  
10mm / 14mm Hollow Axle Available



\* Hollow Axle

#### RH D256SBT-14H

Weight	664g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	M14mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	4	Flange To Flange	75.5mm

\* D256SBT-14H — M14mm Hollow Axle.  
\* D256SBT-14S — M14mm Solid Axle.  
\* D256SBT — M10mm Solid Axle.



#### RH D252SBT

Weight	480g	Sealed Bearings	
Spoke Holes	32 36	O.L.D.	135mm
Gauge	14	Axle	M10mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	4	Flange To Flange	75.5mm



### MTB Disc Hubs

Superb Generation 3 in 1  
Fast / Easy Changing

### TYPE 1



<b>FH D661CB</b>	<b>Type 1</b>		
Weight	296g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	Ø9x108mm
P.C.D.	58mm	Axle Material	AL
		Flange To Flange	60.4mm

<b>RH D662CB</b>	<b>Type 1</b>		
Weight	439g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	Ø10x145mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm



For 5mm QR

For Reference only



<b>FH D661SB</b>	<b>Type 1</b>		
Weight	309g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	Ø9x108mm
P.C.D.	58mm	Axle Material	AL
		Flange To Flange	60.4mm

<b>RH D662SB</b>	<b>Type 1</b>		
Weight	447g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	Ø10x145mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm



FUNCTION 3 IN 1. MTB / CX



### All Mountain

The 3 in 1 hubs are the most wanted hub in the market up to date,  
best for aftermarket and specially for wheelset builder.

### TYPE 2



<b>FH D661CB</b>	<b>Type 2</b>		
Weight	292g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	Ø9mm
P.C.D.	58mm	Axle Material	AL
		Flange To Flange	60.4mm

<b>RH D662CB</b>	<b>Type 2</b>		
Weight	468g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	Ø10mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm



For 9/10mm Thru QR

For Reference only



<b>FH D661SB</b>	<b>Type 2</b>		
Weight	306g	Sealed Bearings	
Spoke Holes		O.L.D.	100mm
Gauge		Axle	Ø9mm
P.C.D.	58mm	Axle Material	AL
		Flange To Flange	60.4mm

<b>RH D662SB</b>	<b>Type 2</b>		
Weight	477g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	Ø10mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm



FUNCTION 3 IN 1. ALL MOUNTAIN



### DOWNHILL

Type 1 For 5mm QR, Type 2 For 9mm / 10mm Through QR,  
Type 3 For 20mm / 12mm Through Axle

### TYPE 3



<b>FH D661CB</b>	<b>Type 3</b>		
Weight	265g	Sealed Bearings	
Spoke Holes		O.L.D.	110mm
Gauge		Axle	Ø20mm
P.C.D.	58mm	Flange To Flange	60.4mm

<b>RH D662CB</b>	<b>Type 3</b>		
Weight	434g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	Ø12mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm



For 20/12mm Thru Axle

For Reference only



<b>FH D661SB</b>	<b>Type 3</b>		
Weight	268g	Sealed Bearings	
Spoke Holes		O.L.D.	110mm
Gauge		Axle	Ø20mm
P.C.D.	58mm	Flange To Flange	60.4mm

<b>RH D662SB</b>	<b>Type 3</b>		
Weight	443g	Sealed Bearings	
Spoke Holes		O.L.D.	135mm
Gauge		Axle	Ø12mm
P.C.D.	58mm	Axle Material	CRMO
Pawls	3	Flange To Flange	58.4mm



FUNCTION 3 IN 1. DOWNHILL

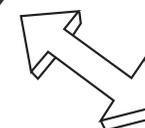
# BMX

## BMX One Model Two Systems

The System of Dirt Jump Drive Unit & Cassette



BMX Drive Unit



BMX Cassette



# BMX

All photos taken by Karol Breyer



## Alloy BMX Hubs 2 IN 1

Easy To Change In Between Cassette And Drive Unit  
 Hollow Axle Available  
 Weight May Be Different Refer To Axle Length



RH	F176SBT-14H	Drive Unit
Weight	524g	Sealed Bearings
Spoke Holes		O.L.D. 110mm
Gauge		Axle M14
P.C.D.	49mm	Axle Material CRMO
Pawls	4	Flange To Flange 57mm

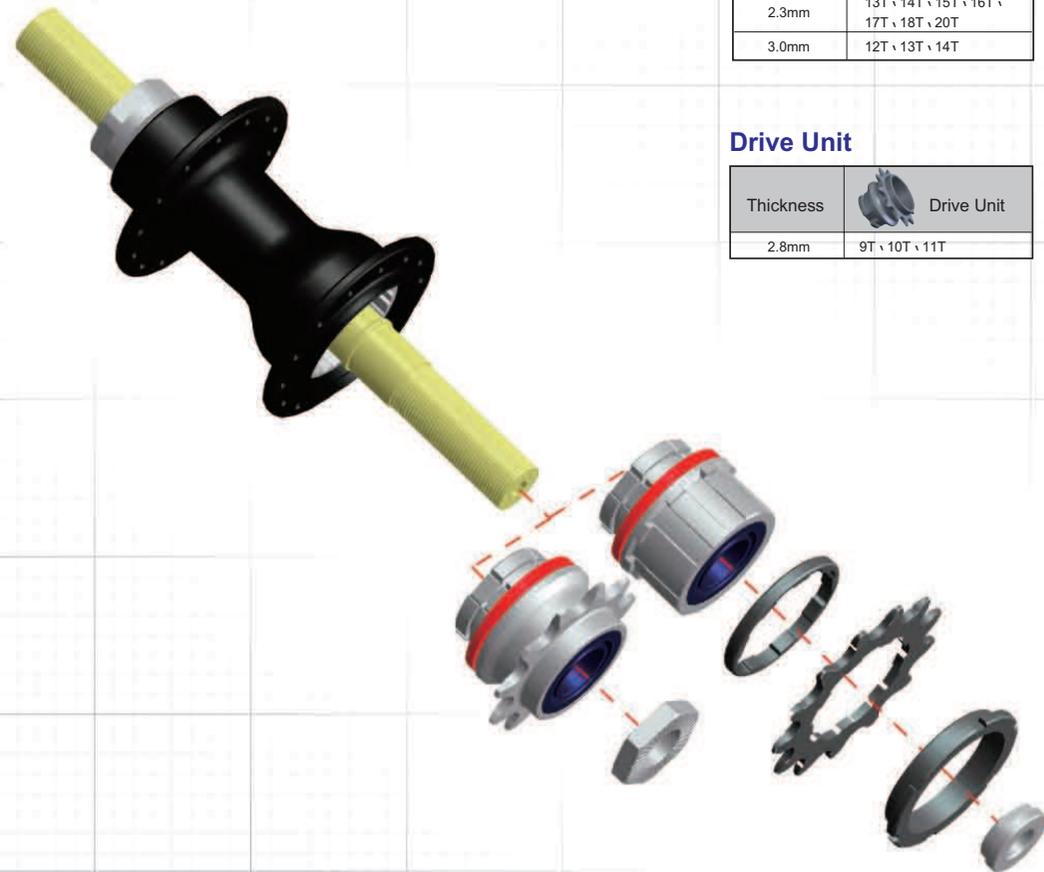


RH	F176SBT-14S	Cassette
Weight	487g	Sealed Bearings
Spoke Holes		O.L.D. 110mm
Gauge		Axle M14
P.C.D.	49mm	Axle Material CRMO
Pawls	4	Flange To Flange 57mm



## 3D Explotion

### One Model Two Systems



#### Cassette

Thickness	Sprocket
2.3mm	13T, 14T, 15T, 16T, 17T, 18T, 20T
3.0mm	12T, 13T, 14T

#### Drive Unit

Thickness	Drive Unit
2.8mm	9T, 10T, 11T

#### Explanation :

F176SBT ..... 3/8" Solid Axle  
 \* For 3/8" Hollow Axle Specify in Order  
 F176SBT-14S ... M14 Solid Axle  
 F176SBT-14H ... M14 Hollow Axle



## Alloy BMX Hubs M14 Cassette

For Racing BMX Bike  
Hollow Axle Available



**FH 765SBT**

Weight	258g	Sealed Bearings	
Spoke Holes	36	O.L.D.	100mm
Gauge	14	Axle	3/8"
P.C.D.	41mm	Axle Material	CRMO
		Flange To Flange	72mm



**RH F036SBT**

Weight	616g	Sealed Bearings	
Spoke Holes	36 48	O.L.D.	110mm
Gauge	14	Axle	3/8"
P.C.D.	58mm	Axle Material	CRMO
Pawls	4	Flange To Flange	58.4mm

\*L.S.D. Available



**RH D066SBT**

Weight	586g	Sealed Bearings	
Spoke Holes	36 48	O.L.D.	110mm
Gauge	14	Axle	3/8"
P.C.D.	58mm	Axle Material	CRMO
Pawls	4	Flange To Flange	59mm



## Alloy BMX Hubs Freewheel

For Heavy Duty BMX Bike  
Hollow Axle Available  
L.S.D. / Flip-Flop Available



**FH A075SBT**

Weight	440g	Sealed Bearings	
Spoke Holes	36 48	O.L.D.	100mm
Gauge	14	Axle	M14 or 3/8"
P.C.D.	45mm	Axle Material	CRMO
		Flange To Flange	72mm



**RH A076SBT**

Weight	459g	Sealed Bearings	
Spoke Holes	36 48	O.L.D.	110mm
Gauge	14	Axle	M14
P.C.D.	49mm	Axle Material	CRMO
		Flange To Flange	58mm



**FH A01CSBT**

Weight	438g	Sealed Bearings	
Spoke Holes	36 48	O.L.D.	100mm
Gauge	14	Axle	M14
P.C.D.	62mm	Axle Material	CRMO
		Flange To Flange	71mm



**RH A01ESBT**

Weight	479g	Sealed Bearings	
Spoke Holes	36 48	O.L.D.	110mm
Gauge	14	Axle	M14
P.C.D.	62mm	Axle Material	CRMO
		Flange To Flange	60mm

# Quick Release



QR202F-CB      QR202F      QR202R-CB      QR202R

Carbon

F Weight 38g+Lever 8g      F Weight 38g+Lever 7g  
R Weight 43g+Lever 8g      R Weight 43g+Lever 7g

QR204F      QR205F-CB      QR205F      QR207F      QR204R      QR205R-CB      QR205R      QR207R

Ti      Carbon

F Weight 53g      F Weight 37g      F Weight 50g      F Weight 54g  
R Weight 58g      R Weight 43g      R Weight 58g      R Weight 59g  
(CrMo F: 39g R: 47g)

QR209F      QR211F      QR215F      QR225F      QR209R      QR211R      QR215R      QR225R

F Weight 52g      F Weight 49g      F Weight 81g      F Weight 38g + Lever 11g  
R Weight 57g      R Weight 54g      R Weight 111g      R Weight 43g + Lever 11g

QR224F-AC      QR227F      QR224R-AC      QR227R

20N 101g      M12x202 102g      M12x215 107g

F Weight 65g      F Weight 54g  
R Weight 70g      R Weight 58g

# Accessory

Center Lock Parts						
REF. PHOTO						
ITEM NO.	XC-COVER	XC-CL-AD	XC-CL-6 BOLTS	XC-CL-LR	DH-CL-AD	DH-CL-LR

### Sealed Bearings Cassette Bodies

Road / MTB Alloy	Road Alloy	Standard	Road / MTB Ti
86g	80g	92g	106g
A F292SB.....108g ROAD	A F392SB.....114g ROAD	A F292SB-S10.....102g ROAD	Can be system : A B C
B D662SB.....78g MTB			

Road Steel	MTB Steel	Light Steel	BMX Steel
180g	148g	180g	9T...103g, 10T...114g, 11T...125g
		A D042SB.....160g B D662SB.....145g	BMX-DU      BMX-C

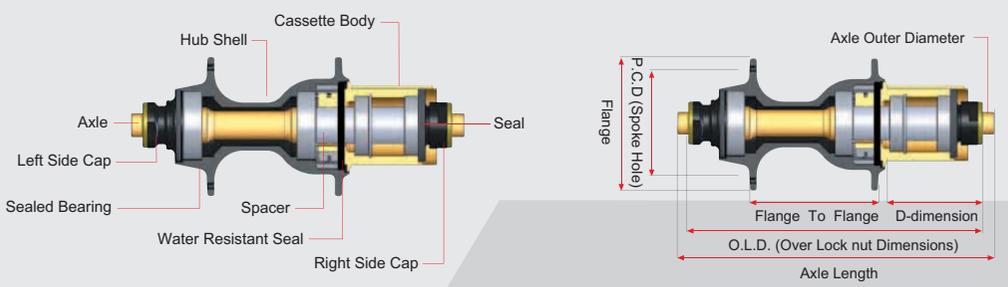
### HUB COMPONENTS

Water Resistant	Seal	Stop Nut
Side Cap	Spacer	Sealed Bearing

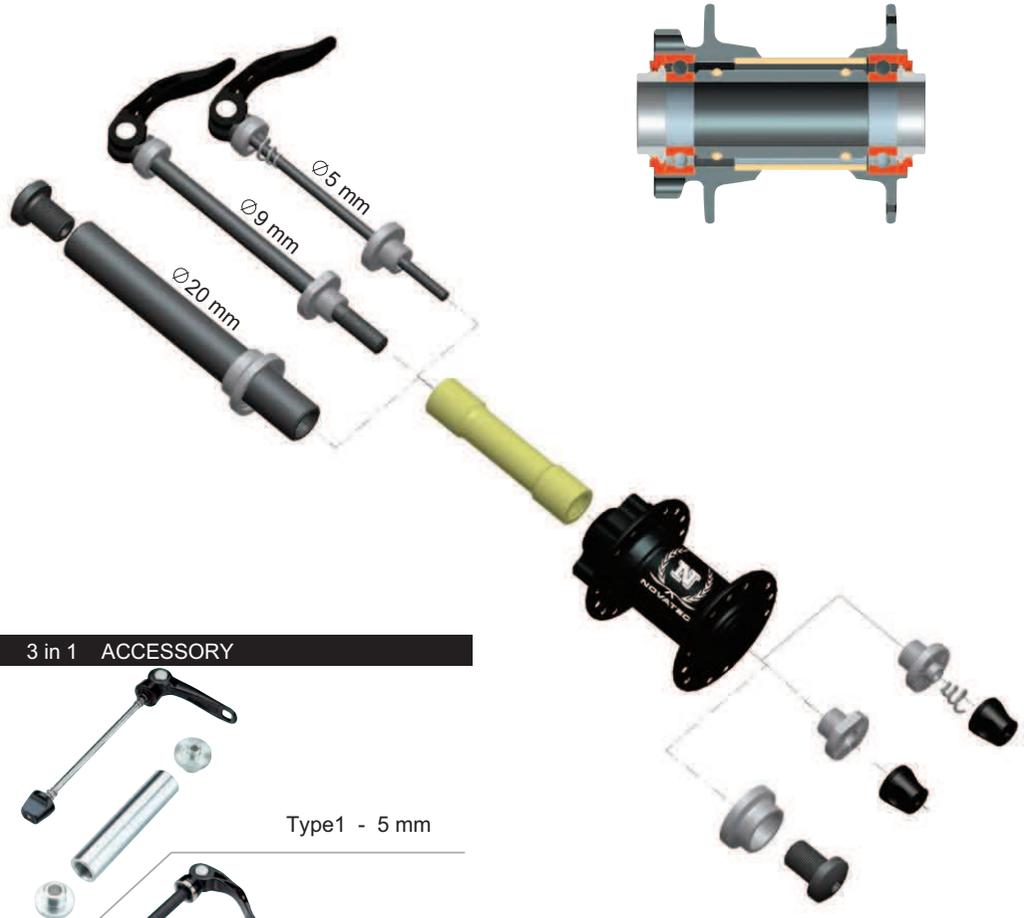
### After Market Packages

Carbon Hubs	Center Lock	MTB 3 In 1	Cassette
		Header Card	

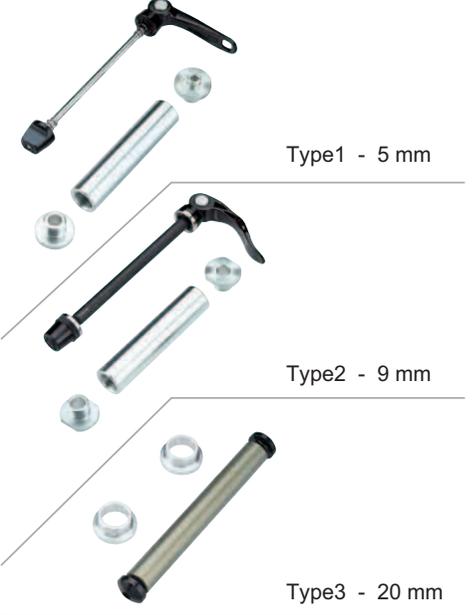
### SPECIFICATION



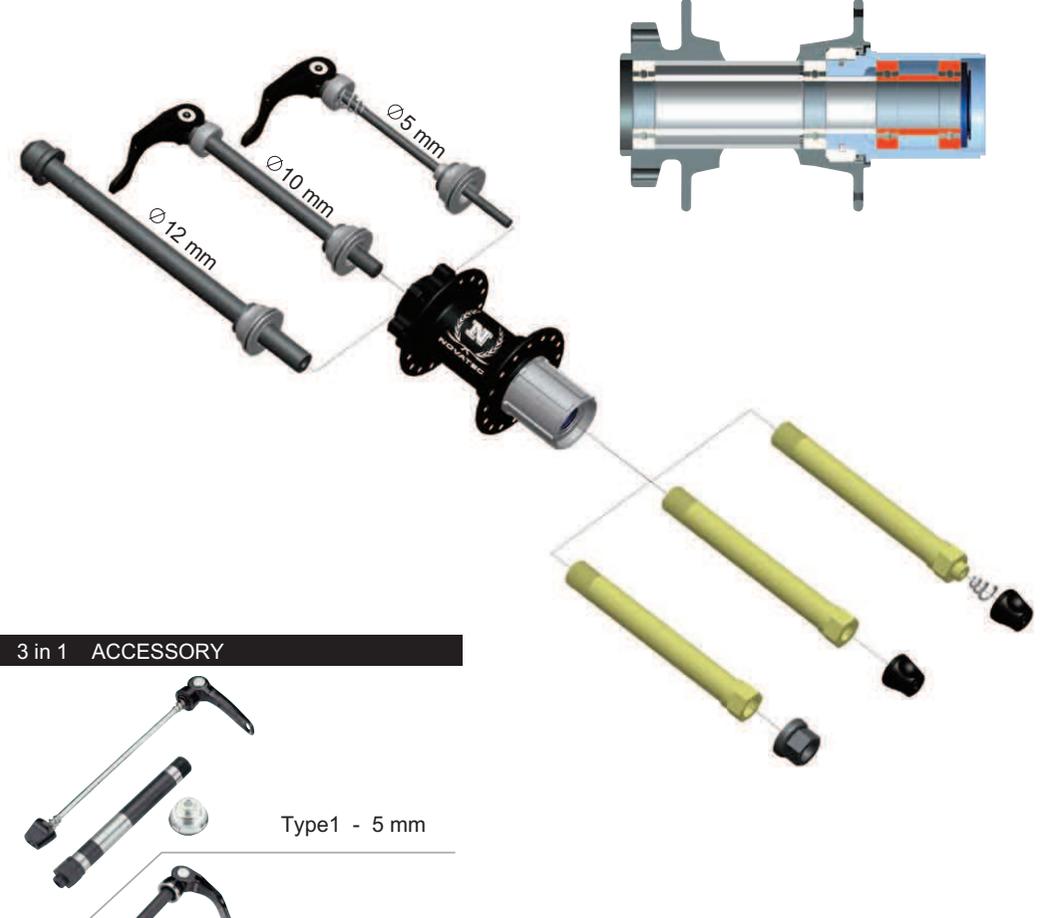
### D661SB (3 in 1 System) 3D Explotion D661CB



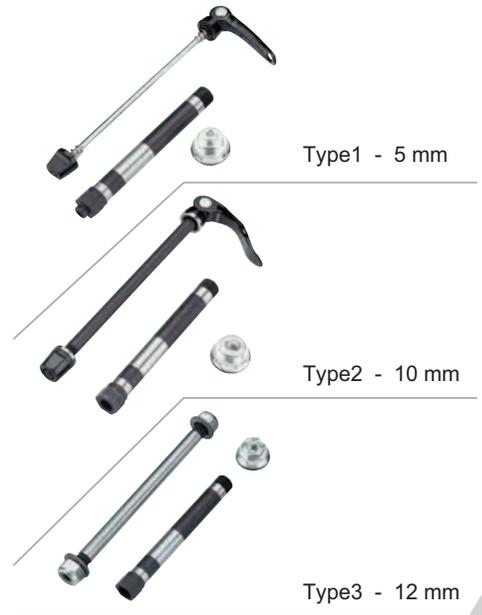
#### 3 in 1 ACCESSORY



### D662SB (3 in 1 System) 3D Explotion D662CB



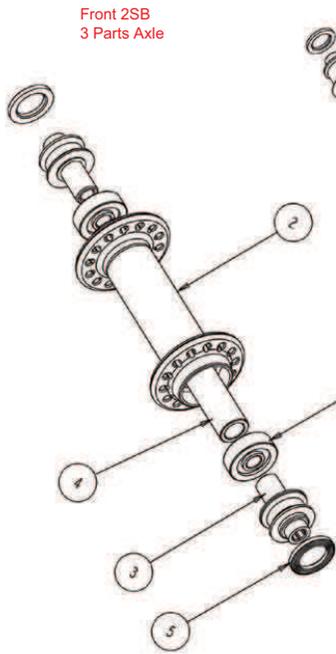
#### 3 in 1 ACCESSORY



# System of ROAD Hub

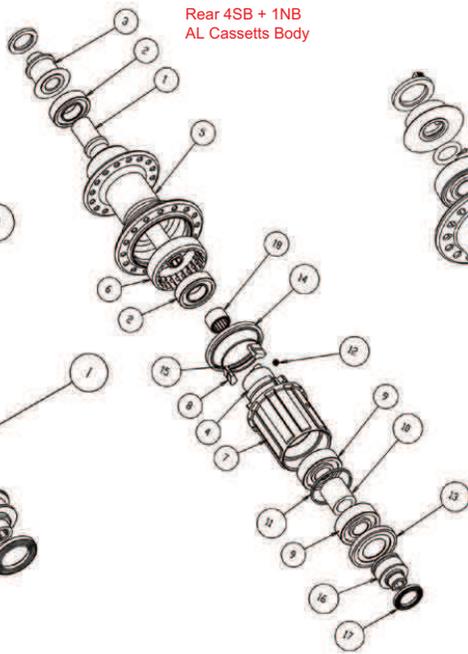
## A291SB

Front 2SB  
3 Parts Axle



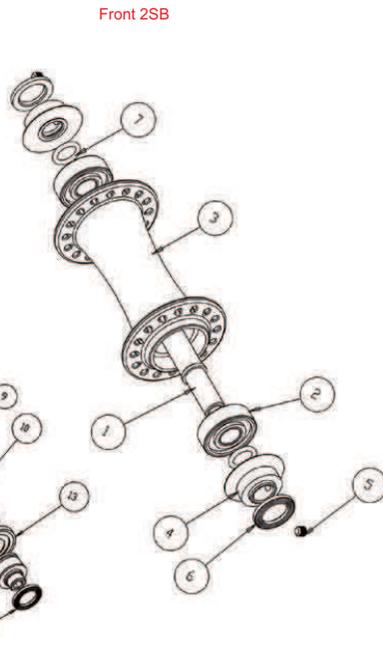
## F292SB

Rear 4SB + 1NB  
AL Cassette Body



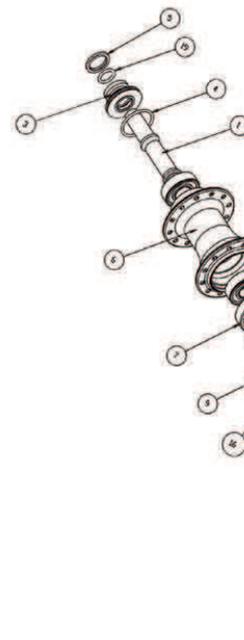
## A141SB

Front 2SB



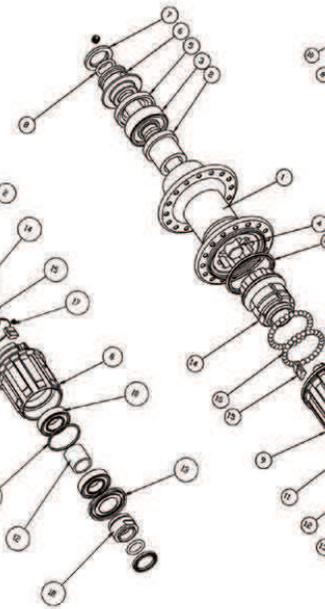
## F162SB

Rear 4SB  
AL Cassette Body



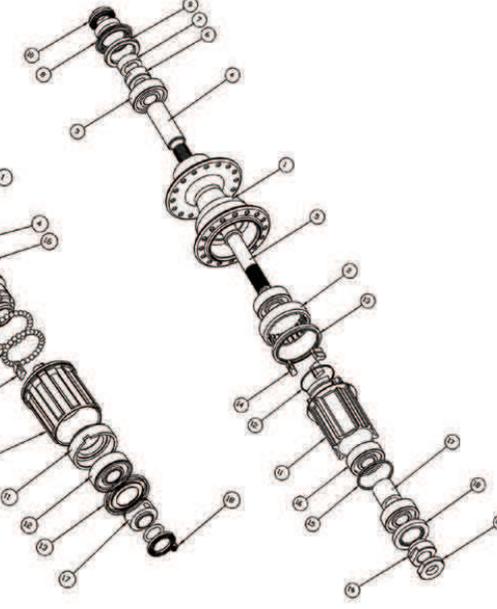
## F192SB

Rear 2SB+LB  
Steel Cassette Body  
SMN8/9 only



## F472SBT

Rear 4SB  
Steel Cassette Body  
CAMPY only

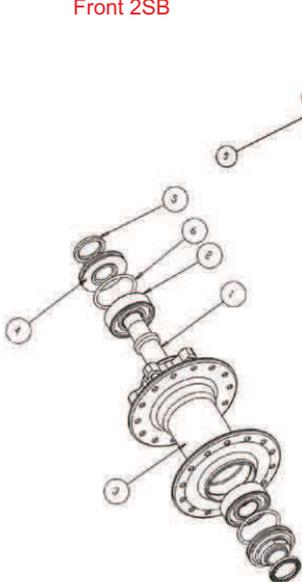


A291SB	DESCRIPTION	PCS.	F292SB	DESCRIPTION	PCS.	A141SB	DESCRIPTION	PCS.
1	Bearing	2	1	Axle	1	1	Axle	1
2	Hub Shell	1	2	Bearing	2	2	Bearing	2
3	Side Cap	2	3	Left Side Cap	1	3	Hub Shell	1
4	Long Spacer	1	4	Spacer	1	4	Side Cap	2
5	Washer	2	5	Hub Shell	1	5	Nut	2
6			6	Ratchet Ring	1	6	Washer	2
7			7	Cassette Body	1	7	O-Ring	2
8			8	Pawl	3	8		
9			9	Bearing	2	9		
10			10	Long Spacer	1	10		
11			11	C-Ring	1	11		
12			12	Stop Nut	1	12		
13			13	Oil Seal	1	13		
14			14	Water Resistance Seal	1	14		
15			15	Spring	1	15		
16			16	Right Side Cap	1	16		
17			17	Washer	2	17		
18			18	Needle Bearing	1	18		
19			19			19		
20			20			20		

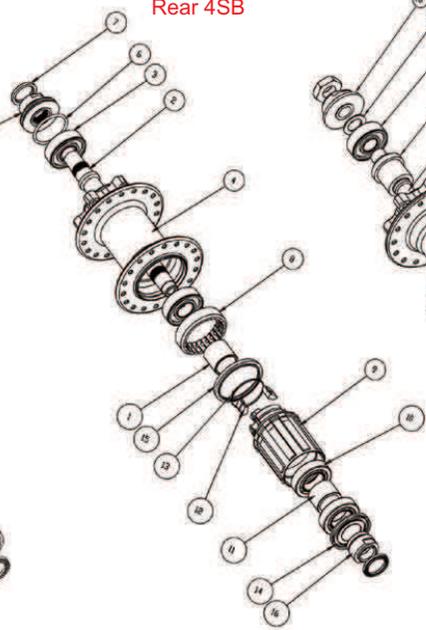
F162SB	DESCRIPTION	PCS.	F192SB	DESCRIPTION	PCS.	F472SBT	DESCRIPTION	PCS.
1	Axle	1	1	Hub Shell	1	1	Hub Shell	1
2	Bearing	2	2	Stator Washer	1	2	Ratchet Ring	1
3	Left Side Cap	1	3	Bearing	1	3	Bearings	2
4	O-Ring	1	4	Axle	1	4	Spacer	1
5	Washer	2	5	Oil Seal	1	5	Axle	1
6	Hub Shell	1	6	Side Cap	1	6	Nut	1
7	Ratchet Ring	1	7	Washer	2	7	Spacer	1
8	Cassette Body	1	8	O-Ring	2	8	Double Oil Seal	1
9	Spring	1	9	Cassette Body	1	9	Side Cap Seal	1
10	Bearings	2	10	Steel Ball	52	10	T-Nut	1
11	C-Ring	1	11	Cup	1	11	Steel Campy Cassette Body	1
12	Short Spacer	1	12	Bearing	1	12	Spring	1
13	Oil Seal	1	13	Oil Seal	1	13	Water Resistance Seal	1
14	Water Resistance Seal	1	14	Ratchet	1	14	Pawl	3
15	Long Spacer	1	15	Pawl	2	15	C-Ring	1
16	Pawl	3	16	Seal	1	16	Bearing	2
17	Stop Nut	1	17	Right Side Cap	1	17	Long Spacer	1
18	Right Side Cap	1	18	Nut	2	18	Oil Seal	1
19	O-Ring	2	19			19	Right Side Cap	1
20			20			20	Stop Nut	1

### System of **MTB** Hub

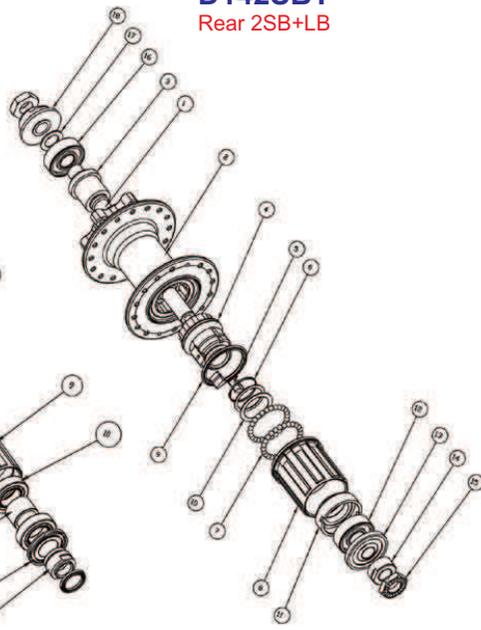
**D041SB**  
Front 2SB



**D042SB**  
Rear 4SB



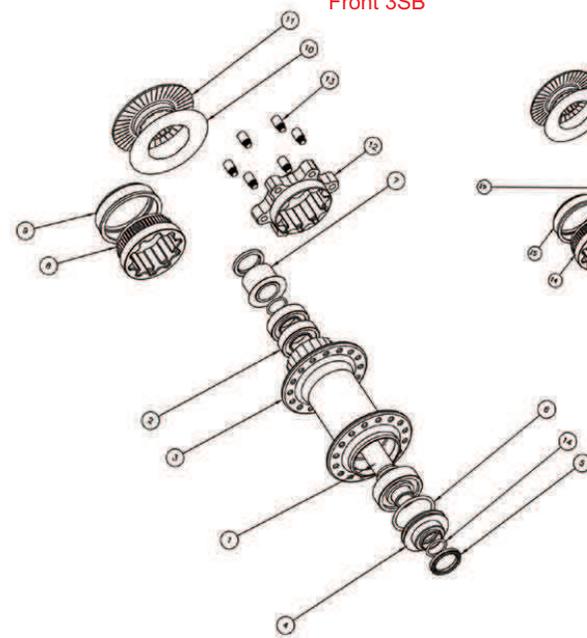
**D142SBT**  
Rear 2SB+LB



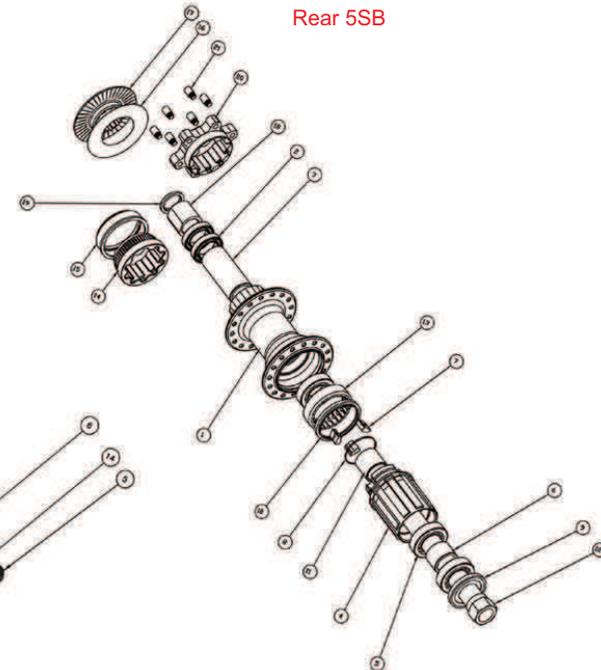
D041SB	DESCRIPTION	PCS.	D042SB	DESCRIPTION	PCS.	D142SBT	DESCRIPTION	PCS.
1	Axle	1	1	Long Spacer	1	1	Axle	1
2	Bearing	2	2	Axle	1	2	Hub Shell	1
3	Hub Shell	1	3	Bearing	2	3	Stator Washer	1
4	Side Cap	2	4	Hub Shell	1	4	Ratchet	1
5	Washer	2	5	Left Side Cap	1	5	Pawl	2
6	O-Ring	2	6	O-Ring	1	6	Spring	1
7			7	Washer	2	7	Steel Ball	2
8			8	Ratchet Ring	1	8	Steel Cassette Body	1
9			9	Cassette Body	1	9	Seal	1
10			10	Bearing	2	10	Washer	2
11			11	Spacer	1	11	Cup	1
12			12	Pawl	3	12	Bearing	1
13			13	Spring	1	13	Oil Seal	1
14			14	Oil Seal	1	14	Nut	1
15			15	Water Resistance Seal	1	15	Nut	2
16			16	Right Side Cap	1	16	Bearing	1
17			17			17	Spacer	1
18			18			18	Left Side Cap	1
19			19			19		
20			20			20		

### System of **MTB-CL** Hubs

**D361SB-CL**  
Front 3SB



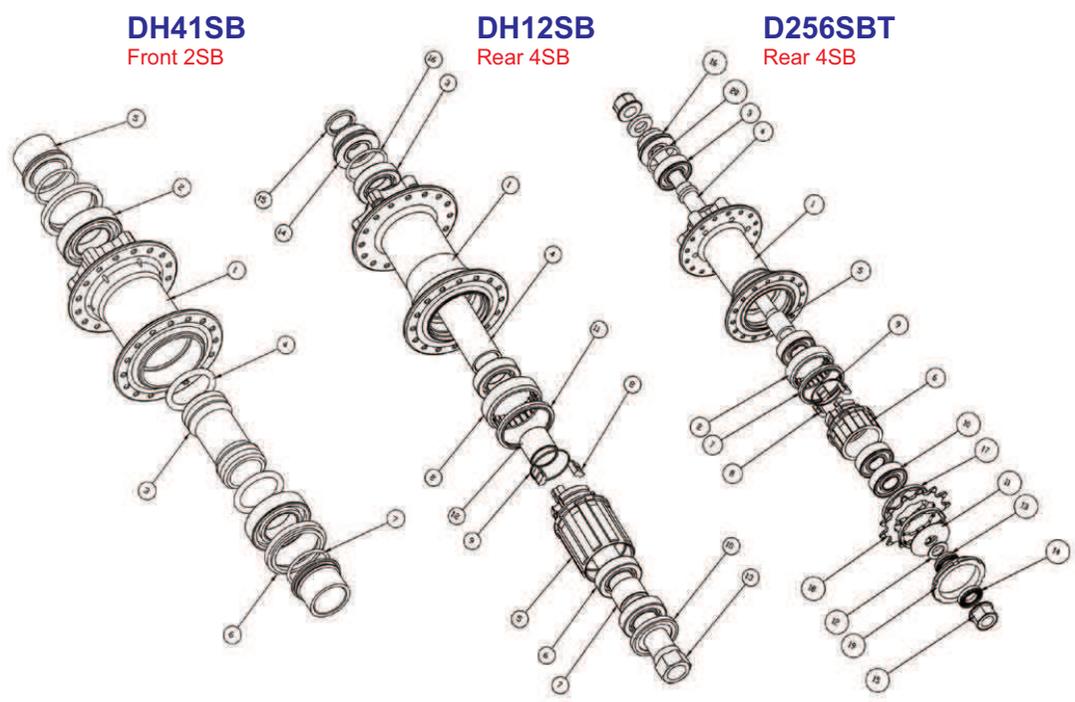
**D362SB-CL**  
Rear 5SB



D361SB-CL	DESCRIPTION	PCS.	D362SB-CL	DESCRIPTION	PCS.
1	Axle	1	1	Hub Shell	1
2	Bearing	3	2	Bearing	3
3	Hub Shell	1	3	Long Spacer	1
4	Right Side Cap	1	4	Cassette Body	1
5	Washer	2	5	Bearing	2
6	O-Ring	1	6	Spacer	1
7	Left Side Cap	1	7	Pawl	3
8	Center Lock Adapter	1	8	Spring	1
9	Cover Rubber Cap	1	9	Oil Seal	1
10	Lock Ring Washer	1	10	Water Resistance Seal	1
11	Lock Ring	1	11	Long Spacer	1
12	6 Bolt Adapter	1	12	Axle	1
13	Pin	6	13	Ratchet Ring	1
14	O-Ring	2	14	Center Lock Adapter	1
15			15	Cover Rubber Cap	1
16			16	Lock Ring Washer	1
17			17	Lock Ring	1
18			18	Left Side Cap	1
19			19	Washer	1
20			20	6 Bolt Adapter	1
21			21	Pin	6

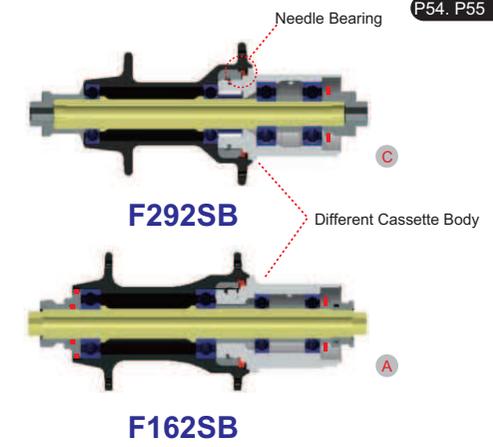
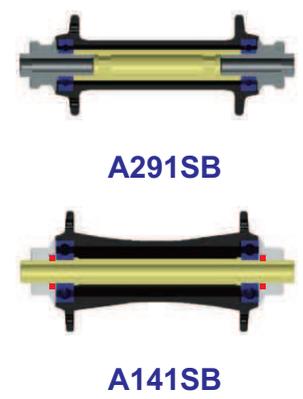
\* Colors of parts are for reference only Red color = Oil Seal

# System of DH / DIRT JUMP Hub

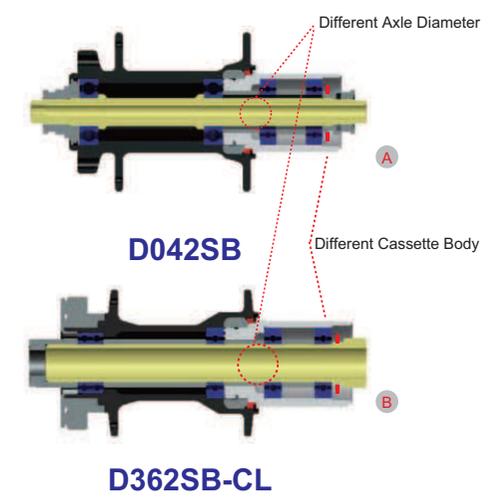
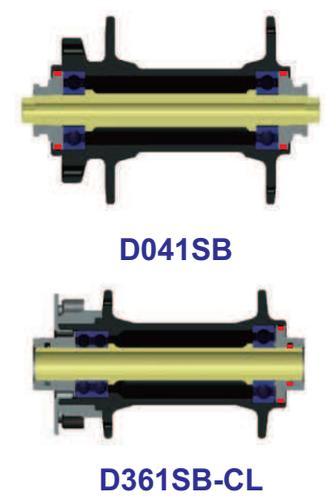


DH41SB	DESCRIPTION	PCS.	DH12SB	DESCRIPTION	PCS.	D256SBT	DESCRIPTION	PCS.
1	Hub Shell	1	1	Hub Shell	1	1	Hub Shell	1
2	Bearing	2	2	Ratchet Ring	1	2	Ratchet Ring	2
3	Spacer	1	3	Bearing	2	3	Bearing	2
4	O-Ring	2	4	Spacer	1	4	Axle	1
5	Spacer	2	5	Cassette Body	1	5	Long Spacer	1
6	Side Cap	2	6	Bearing	2	6	Cassette Body	1
7	O-Ring	2	7	Spacer	1	7	Water Resistance Seal	1
8			8	Pawl	3	8	Pawl	4
9			9	Spring	1	9	Spring	1
10			10	Oil Seal	1	10	Bearing	2
11			11	Water Resistance Seal	1	11	Dust Cap	1
12			12	Long Spacer	1	12	Spacer	1
13			13	Axle	1	13	T-Nut	1
14			14	Left Side Cap	1	14	Washer	2
15			15	Washer	1	15	Nut with Washer	2
16			16	O-Ring	1	16	Left Side Cap	1
17			17			17	Spacer	2
18			18			18	Sprocket	1
19			19			19	Lock Ring	1
20			20			20	O-Ring	1

## ROAD



## MTB

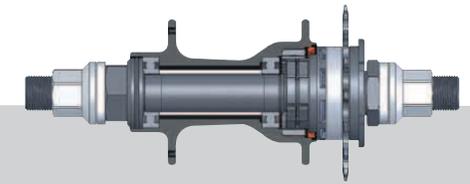


## BMX

### Two Systems One Model

F176SBT-14H Drive Unit

F176SB-14H Cassette





# RACER The team diaries

It's time to take stock of your best riding moments.

From coastal views and crumbling glaciers, to curious wildlife and terrifying contraptions, here's some of our favourite snapshots from the saddle this year.



Filip Polc



Sam Blenkinsop



Leiv Ove Nordmark



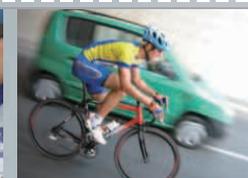
Janka Stevkova



Janka Stevkova's  
Photos taken by Peter Mihalovic



Tarjan Zoltan



# AGENTS & LOCATION



<b>BULGARIA</b>	CROSS Ltd. cross@crosscycle.com	+359-96-300 715 P58 . P59 www.crosscycle.com
<b>CHINA</b>	YONGYU Ironware co., Ltd yongyur@126.com	+86-755-29 68 4343
<b>CZECH REP.</b>	DEMA Senica, a.s. sport@dema.sk	+421-34-694 5240 www.dema.sk
<b>GERMANY</b>	MESSINGSCHLAGER GmbH & Co. KG +49-9544-94 445 info@messingschlager.com www.novatec.messingschlager.com	
<b>HOLLAND</b>	MESSINGSCHLAGER GmbH & Co. KG +49-9544-94 445 info@messingschlager.com www.novatec.messingschlager.com	
<b>HUNGARY</b>	NEUZER KFT. neuzer.info@neuzer-bike.hu	+36-33-500 580 www.neuzer-bike.hu
<b>ISRAEL</b>	MOTOFAN SAHAR (2002) Ltd. motofan@zahav.net.il	+972-9-885 6602
<b>ITALY</b>	EBER S.R.L. ebersrl@eber.191.it	+39-2-488 2301
<b>POLAND</b>	SPEEDER biuro@speeder.com.pl	+48-61-812 2051 www.speeder.com.pl
<b>ROMANIA</b>	SPORT BIKE CENTER s.r.l. office@sportbikecenter.ro	+40-256-220 024 www.sportbikecenter.ro
<b>RUSSIA</b>	SPORTEX kate_soboleva@sportex.ru	+7-495-299 2128 www.sportex.ru
<b>SLOVAKIA</b>	DEMA Senica, a.s. sport@dema.sk	+421-34-694 5240 www.dema.sk
<b>SPAIN+ANDORRA</b>	RACING Components, s.l.u. info@racingcomponents.net	+34-91-854 2364 www.racingcomponents.net
<b>UKRAINE</b>	SPORTSYSTEMS vthoryk@sportsys.com.ua	+380-44-245 5795 www.sportsys.com.ua

## AGENTS The agent location

We created our Agents Network to be closer to you.

To use our high performance products, simply contact with your nearest agent for further service and information.  
Any recommendation, suggestion from you are welcome.