

Frame Fit Specifications

X0™ • X9™ • X7™ • X5™

The benefits SRAM 2X10 and 3x10 delivers—a full range of usable gears, less weight, easier and smoother shifting in all terrains—are becoming understood by riders of all levels, not just cross country pros. To fully appreciate how SRAM 2X10 and 3X10 can help you make the most of your ride, we wanted to provide a comprehensive frame fit resource with the specifications you need to deliver the benefits of a 2X10 or 3X10 drivetrain to your customers.

2X10

3X10



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Front Derailleurs

X0 · X9 · X7 · X5 Front Derailleurs - Low & High Clamp Mount

		CLAMP POSITION ¹				TIRE & CHAINSTAY CLEARANCE - SWING ARM FULLY COMPRESSED				
		Chain Ring Size	A	B	C	D	E	F	G ²	
								at $\alpha = 66^\circ$	at $\alpha = 69^\circ$	
2x10	Low Clamp	36/22	58 mm	78 mm	-	103 mm	48 mm [X0, X9] 46 mm [X7, X5]	31 mm	18 mm	21 mm
		38/24	62 mm	82 mm		107 mm			22 mm	26 mm
		39/26	56 mm	76 mm		101 mm			16 mm	21 mm
		42/28	62 mm	82 mm		107 mm			22 mm	27 mm
	High Clamp	36/22	114 mm [X0] 119 mm [X7, X5]	136 mm [X0] 137 mm [X7, X5]	84 mm	139 mm	34 mm	33 mm	18 mm	23 mm
		38/24	118 mm [X0] 123 mm [X7, X5]	140 mm [X0] 141 mm [X7, X5]	88 mm	143 mm			22 mm	27 mm
		39/26	114 mm [X0, X9] 119 mm [X7, X5]	136 mm [X0, X9] 137 mm [X7, X5]	84 mm	139 mm			21 mm	26 mm
		42/28	120 mm [X0, X9] 125 mm [X7, X5]	142 mm [X0, X9] 143 mm [X7, X5]	90 mm	145 mm			21 mm	26 mm

¹Leave adequate clearance between bottle cage mounts and front derailleur clamp.

²Be sure to consider the full travel range for suspension frames.

³CSA = chainstay angle (angle between seat tube and chainstay).

X0 · X9 · X7 · X5 Front Derailleurs - Low & High Clamp Mount

		CLAMP POSITION ¹				TIRE & CHAINSTAY CLEARANCE - SWING ARM FULLY COMPRESSED				
		Chain Ring Combination	A	B	C	D	E	F	G ² at $\alpha = 66^\circ$ at $\alpha = 69^\circ$	
3x10	Low Clamp	44/33/22	65 mm	85 mm	-	110 mm	48 mm [X0, X9] 46 mm [X7, X5]	31 mm	17 mm	22 mm
	High Clamp	44/33/22	129 mm [X0, X9, X7] 132 mm [X5]	148 mm	98 mm	151 mm	36 mm	31 mm	24 mm	29 mm

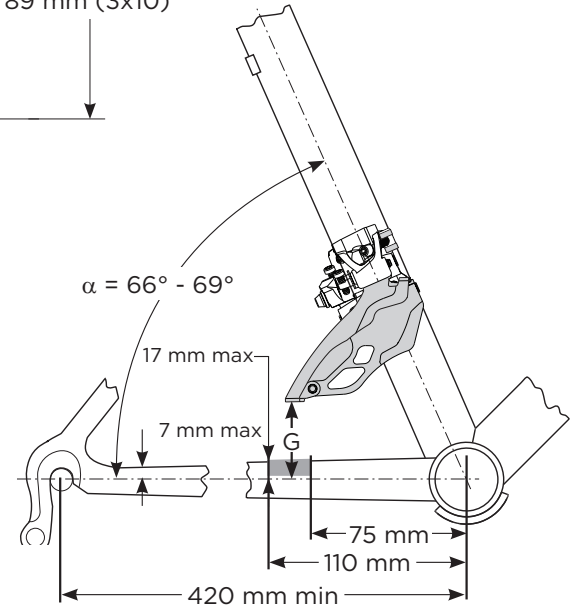
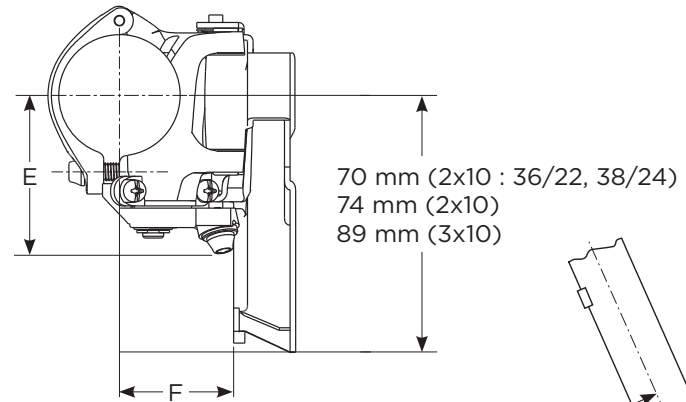
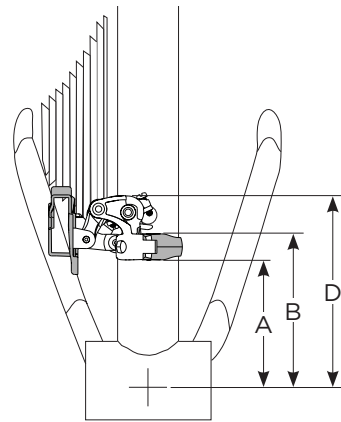
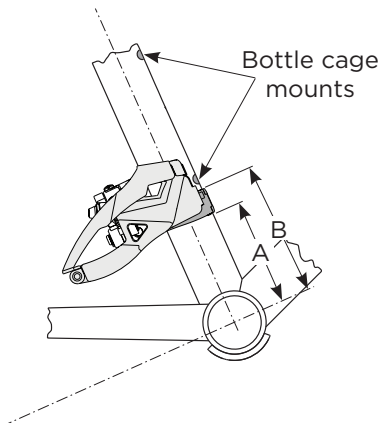
¹Leave adequate clearance between bottle cage mounts and front derailleur clamp.

²Be sure to consider the full travel range for suspension frames.

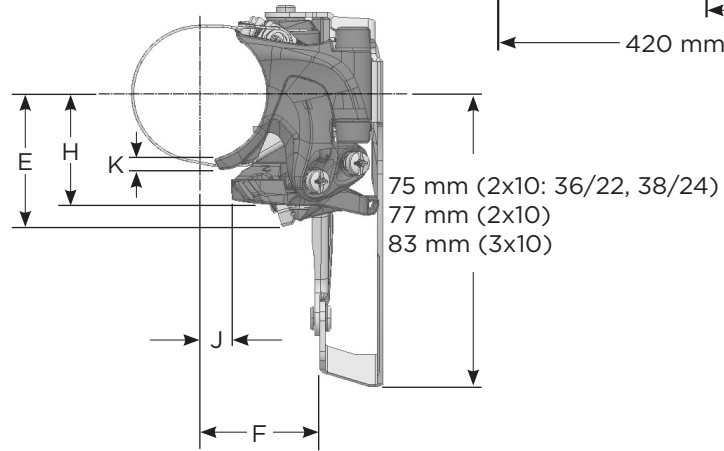
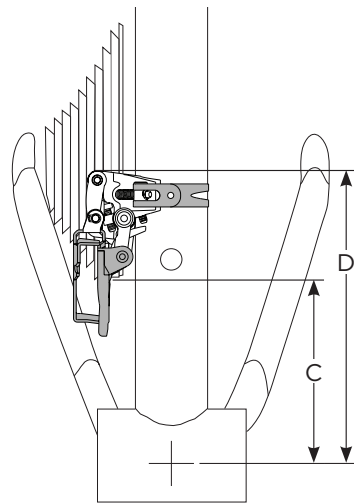
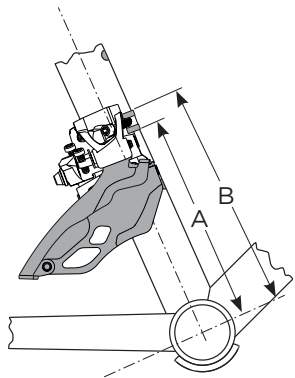
		CLAMP POSITION ¹				TIRE & CHAINSTAY CLEARANCE - SWING ARM FULLY COMPRESSED							
		Chain Ring Size	A	B	C	D	E	F	G ² at $\alpha = 66^\circ$ at $\alpha = 69^\circ$ CSA ⁽³⁾ CSA ⁽³⁾		H	J	K
2x10	High Clamp Top-Pull Compact version only [X0, X7]	36/22	114 mm [X0] 119 mm [X7]	136 mm [X0] 137 mm [X7]	84 mm	139 mm	34 mm	33 mm	18 mm	23 mm	30 mm	12 mm	3 mm [X0] 1 mm [X7]
		38/24	118 mm [X0] 123 mm [X7]	140 mm [X0] 141 mm [X7]	88 mm	143 mm			22 mm	27 mm			
		39/26	120 mm [X0] 125 mm [X7]	142 mm [X0] 143 mm [X7]	90 mm	145 mm			24 mm	28 mm			
3x10		44/33/22	129 mm [X0] 130 mm [X7]	148 mm	98 mm	151 mm	31 mm		29 mm		13 mm		

X0 · X9 · X7 · X5 Front Derailleurs - Low & High Clamp Mount

ALL LOW CLAMP



ALL HIGH CLAMP

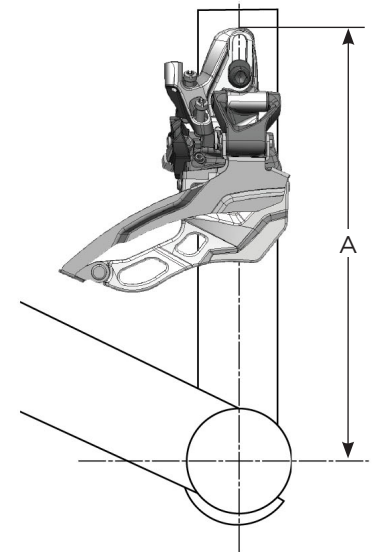


X0 · X9 · X7 · X5 Front Derailleurs - Low & High Clamp Mount

		FRONT DERAILLEUR FRAME COMPATIBILITY AND CAPACITY INFORMATION						
		Clamp Diameter	Rear Capacity	Index	Cable Routing	Chain Stay Angle α	Chain Line	Material
2x10	Low Clamp	31.8 mm [w/ adapter] 34.9 mm 38.2 mm [X0]	10 speed	Yes	Top Pull or Bottom Pull	66° - 69°	49.0 mm [36/22, 38/24] 49.5 mm	Body - Die Cast Aluminum Cage - Steel Clamp - Aluminum Link - Forged/Cast Aluminum
	High Clamp	31.8 mm [X0, X9] 31.8 mm [w/ adapter : X7, X5] 34.9 mm [X0, X9] 38.2 mm [X0, X9]						Body - Die Cast Aluminum Cage - Steel Clamp - Stainless Steel [X0, X9] Die Cast [X7, X5] Link - Forged/Cast Aluminum [X0, X9] Die Cast [X7, X5]
3x10	Low Clamp	31.8 mm [w/ adapter] 34.9 mm 38.2 mm [X0]	10 speed	Yes	Top Pull or Bottom Pull	66° - 69°	51 mm	Body - Die Cast Aluminum Cage - Steel Clamp - Aluminum Link - Forged/Cast Aluminum
	High Clamp	31.8 mm 31.8 mm [w/ adapter : X7, X5] 34.9 mm 38.2 mm [X0, X9]						Body - Die Cast Aluminum Cage - Steel Clamp - Stainless Steel [X0, X9] Die Cast [X7, X5] Link - Forged/Cast Aluminum [X0, X9] Die Cast [X7, X5]

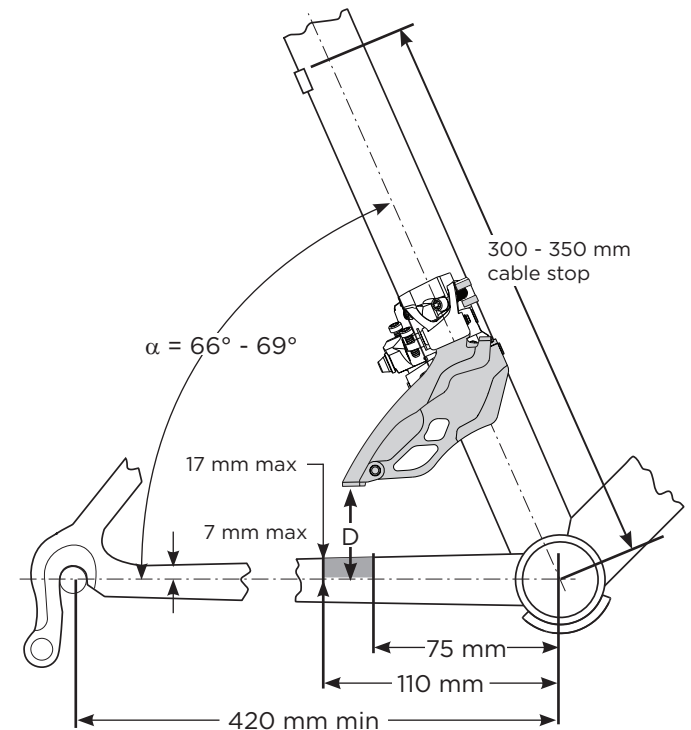
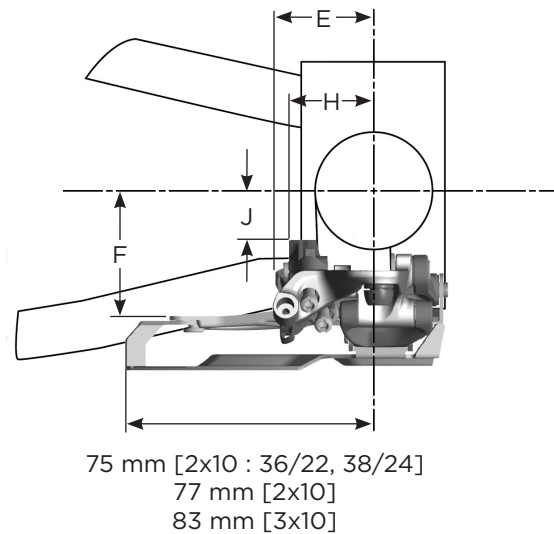
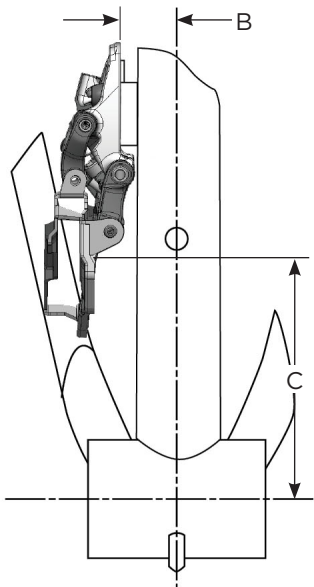
X0 · X9 · X7 Front Derailleurs - High Direct Mount

		PLATE BODY POSITION			TIRE & CHAINSTAY CLEARANCE - SWING ARM FULLY EXTENDED						
		Chain Ring Combination	A	B	C	D ¹		E	F	H ²	J ²
2x10	39/26	165.5 mm ±1.0 mm	26 mm	85 mm	23 mm	27 mm		34 mm	33 mm	30 mm	12 mm
	42/28	171.5 mm ±1.0 mm			29 mm	33 mm				N/A	N/A
3x10	44/33/22	178.5 mm ±1.0 mm	26 mm	98 mm	24 mm	29 mm		34 mm	31 mm	30 mm	13 mm



¹Be sure to consider the full travel range for suspension frames.

²H and J are applicable to Top-Pull Compact Design versions only.

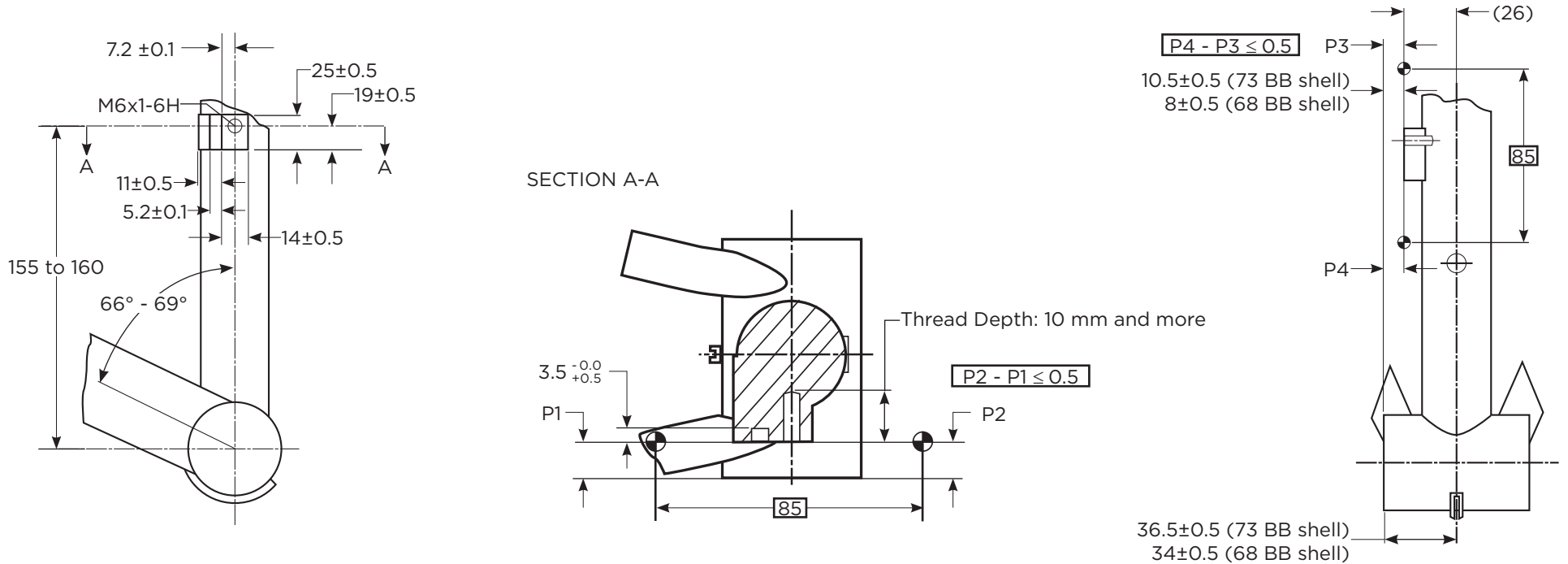


X0 · X9 · X7 Front Derailleurs - High Direct Mount

FRONT DERAILLEUR FRAME COMPATIBILITY AND CAPACITY INFORMATION					
Rear Capacity	Index	Cable Routing	Chain Stay Angle α	Chain Line	Material
10 speed	Yes	Top Pull or Bottom Pull	66° - 69°	49.5 mm [2x10] 51 mm [3x10]	Body - Die Cast Aluminum Cage - Steel Link - Forged/Cast Aluminum

ALL HIGH DIRECT MOUNT

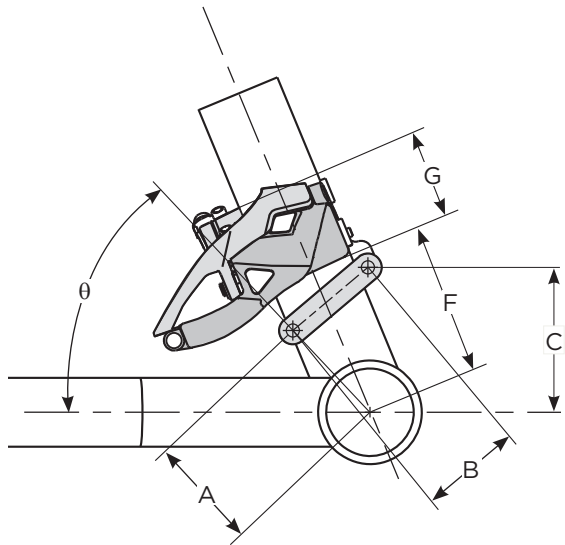
ALL HIGH DIRECT MOUNT FRAME BUILD REQUIREMENTS (All dimensions in millimeters unless otherwise indicated - not to scale)



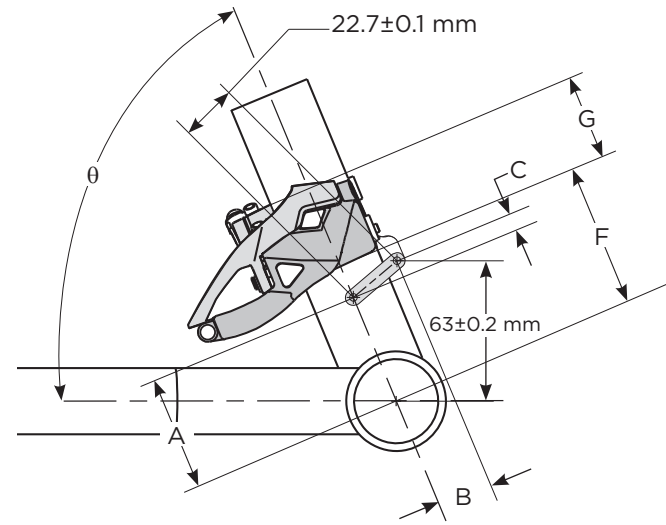
X0 · X9 · X7 Front Derailleurs - Low Direct Mount

MOUNTING HOLE POSITION - SWING ARM FULLY EXTENDED								FRONT DERAILLEUR CLEARANCE - SWING ARM FULLY COMPRESSED			
	θ	A	B	C	D (BB shell width)		E	F	G	d_{max}	
					68 mm	73 mm					
LOW DIRECT MOUNT	S1	$45.5^{\circ} \pm 1^{\circ}$	48.9 mm ± 0.15 mm	42.7 mm ± 0.1 mm	63 mm ± 0.2 mm	14.8 mm ± 0.15 mm	17.3 mm ± 0.15 mm	-	65 mm	48 mm	38.2 mm
	S3	66° or 69° ($\theta = \alpha$)	54 mm ± 0.15 mm	22.1 mm ± 0.05 mm	5 mm ± 0.05 mm	7 mm ± 0.15 mm	9.5 mm ± 0.15 mm	5 mm ± 0.1 mm			

LOW DIRECT MOUNT TYPE : S1

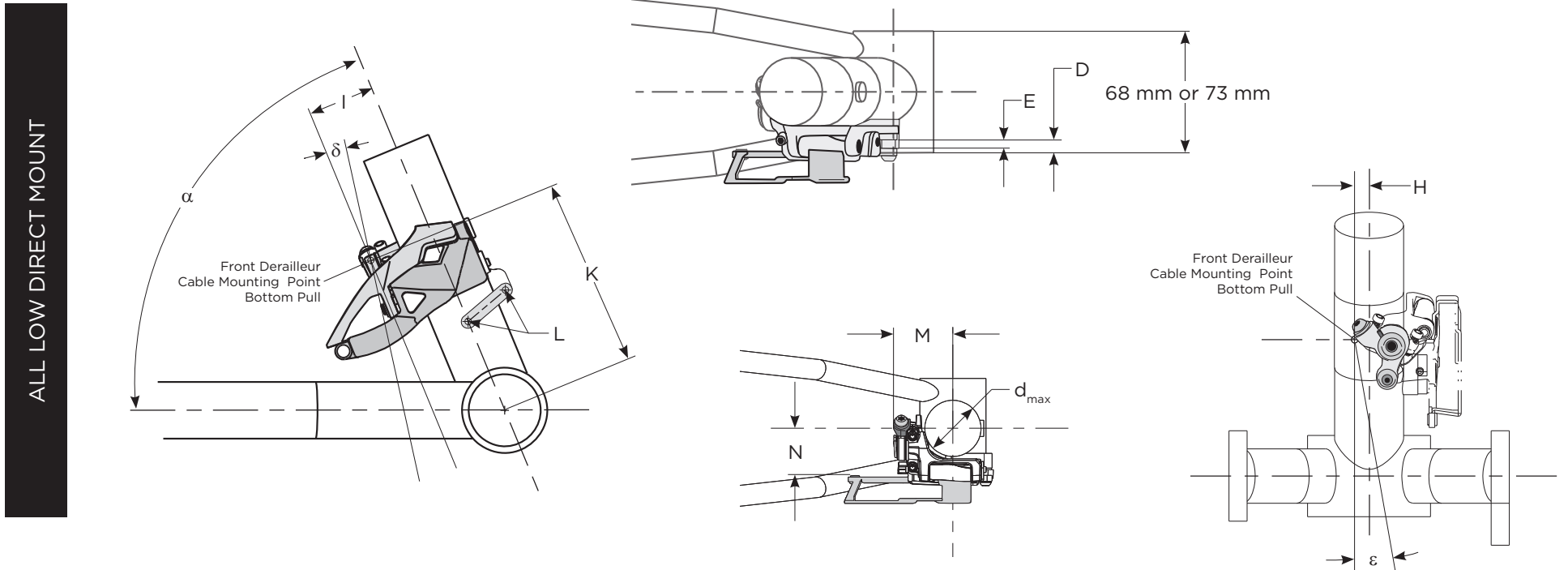


DIRECT MOUNT TYPE : S3



X0 · X9 · X7 Front Derailleurs - Low Direct Mount

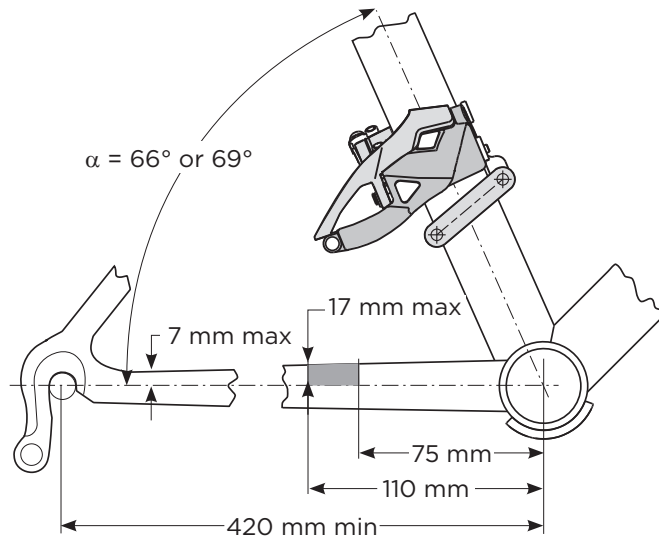
FRONT DERAILLEUR CABLE ROUTING - BOTTOM PULL (SWING ARM FULLY EXTENDED)							THREAD DIMENSION	TIRE CLEARANCE	
H	I	K Chainring Size			δ	ϵ	L	M	N
		39T	42T	45T					
13 mm	34 mm	94 mm	100 mm	108 mm	10.5° max	10.5° max	M5.0x0.8-6H	42 mm	29 mm



X0 · X9 · X7 Front Derailleurs - Low Direct Mount

FRONT DERAILLEUR FRAME COMPATIBILITY AND CAPACITY INFORMATION						
	Rear Capacity	Index	Cable Routing	Chain Stay Angle α	Chain Line	Material
ALL LOW DIRECT MOUNT	10 speed	Yes	Top Pull or Bottom Pull	66° - 69°	49.0 mm [2x10 : 36/22, 38/24] 49.5 mm [2x10] 51 mm [3x10]	Body - Die Cast Aluminum Cage - Steel

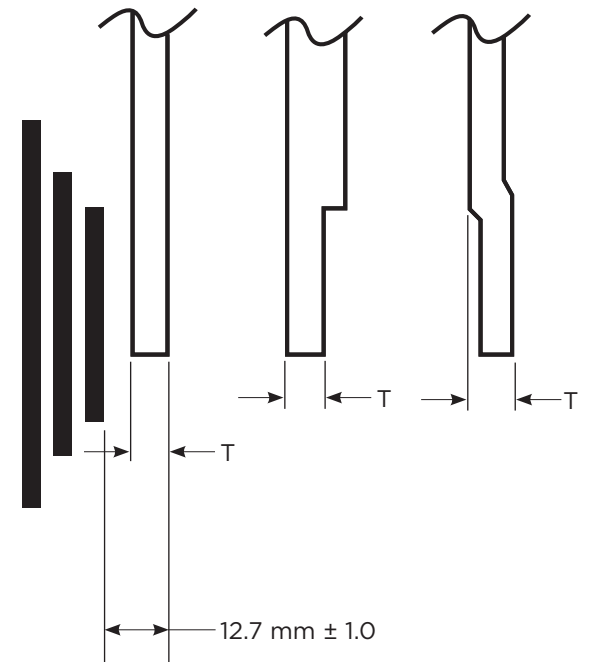
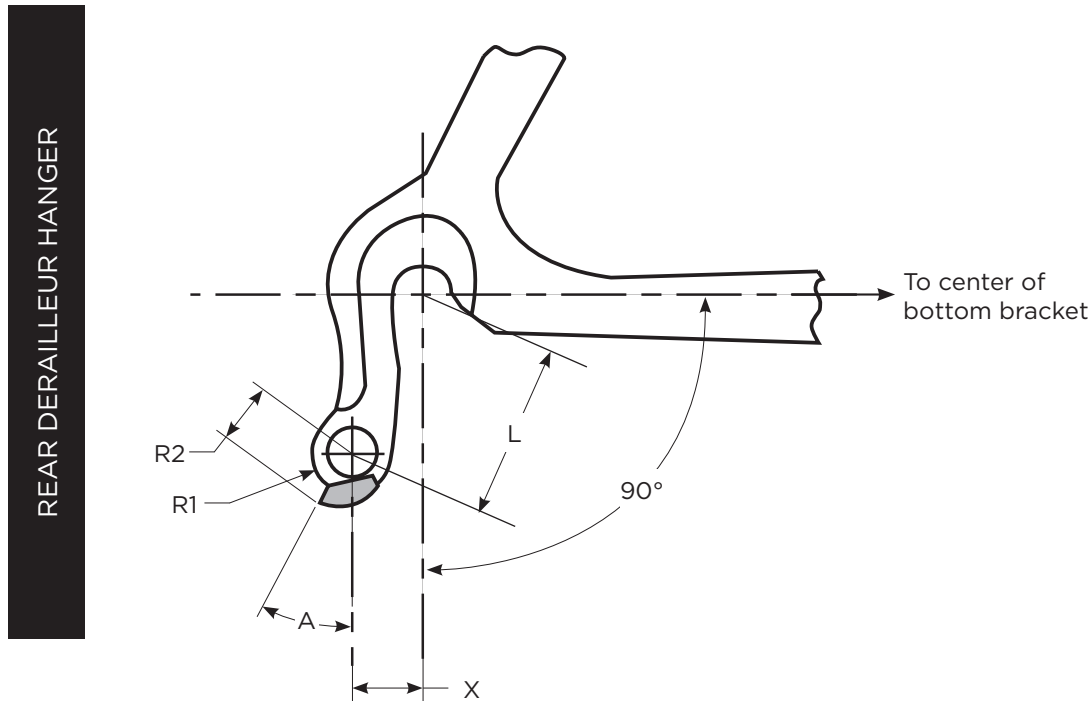
ALL LOW DIRECT MOUNT



Rear Derailleurs

X0 · X9 · X7 · X5 Rear Derailleurs

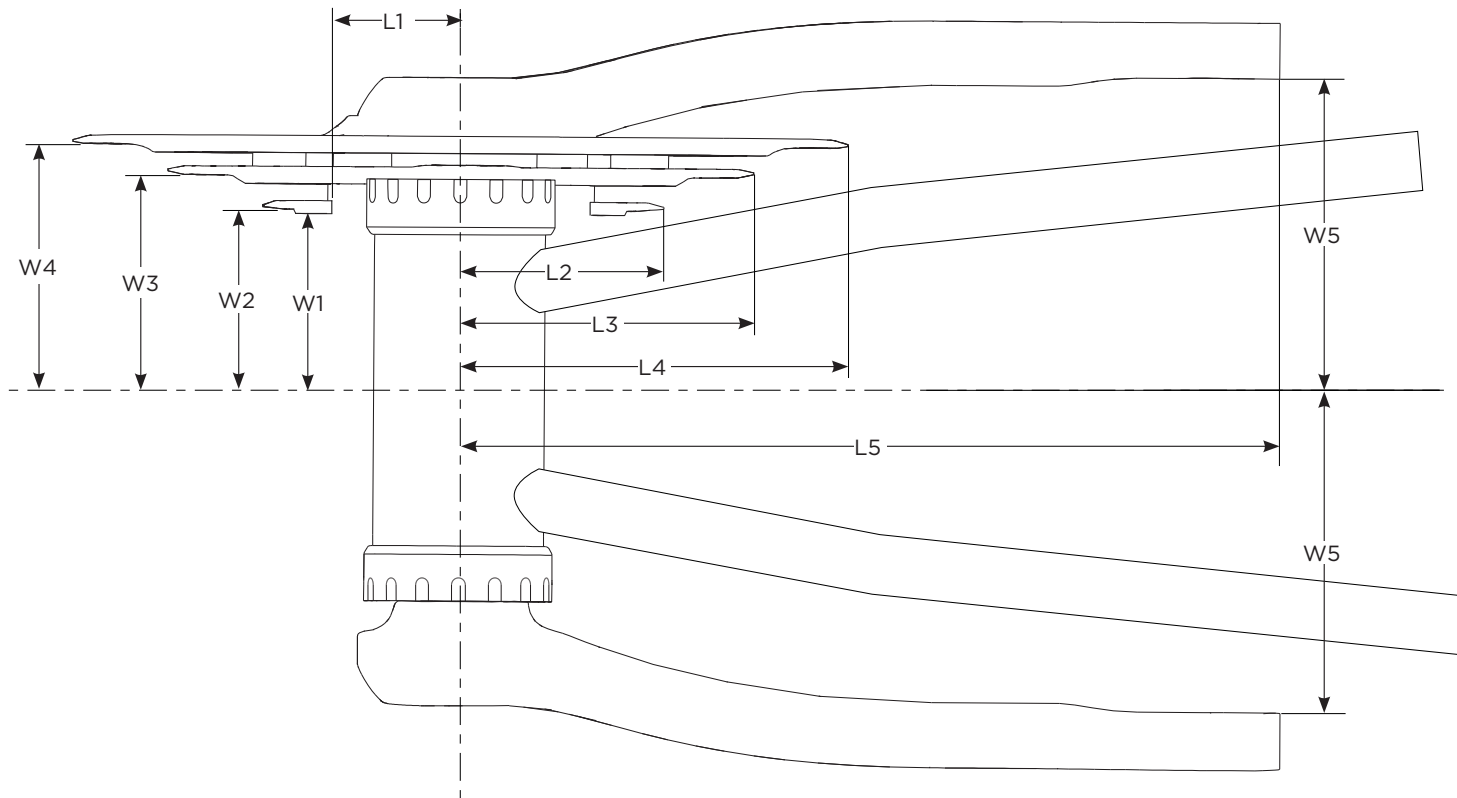
REAR DERAILLEUR HANGER SPECIFICATIONS						
	L	X	A	R1	R2	T
1:1 ACTUATION RATIO	28 mm	8-10 mm	25°-30°	8.5 mm (max)	11.5-13.5 mm	7-8 mm
	30 mm	7.5-10 mm				



Cranksets

X0 Cranksets [2x10]

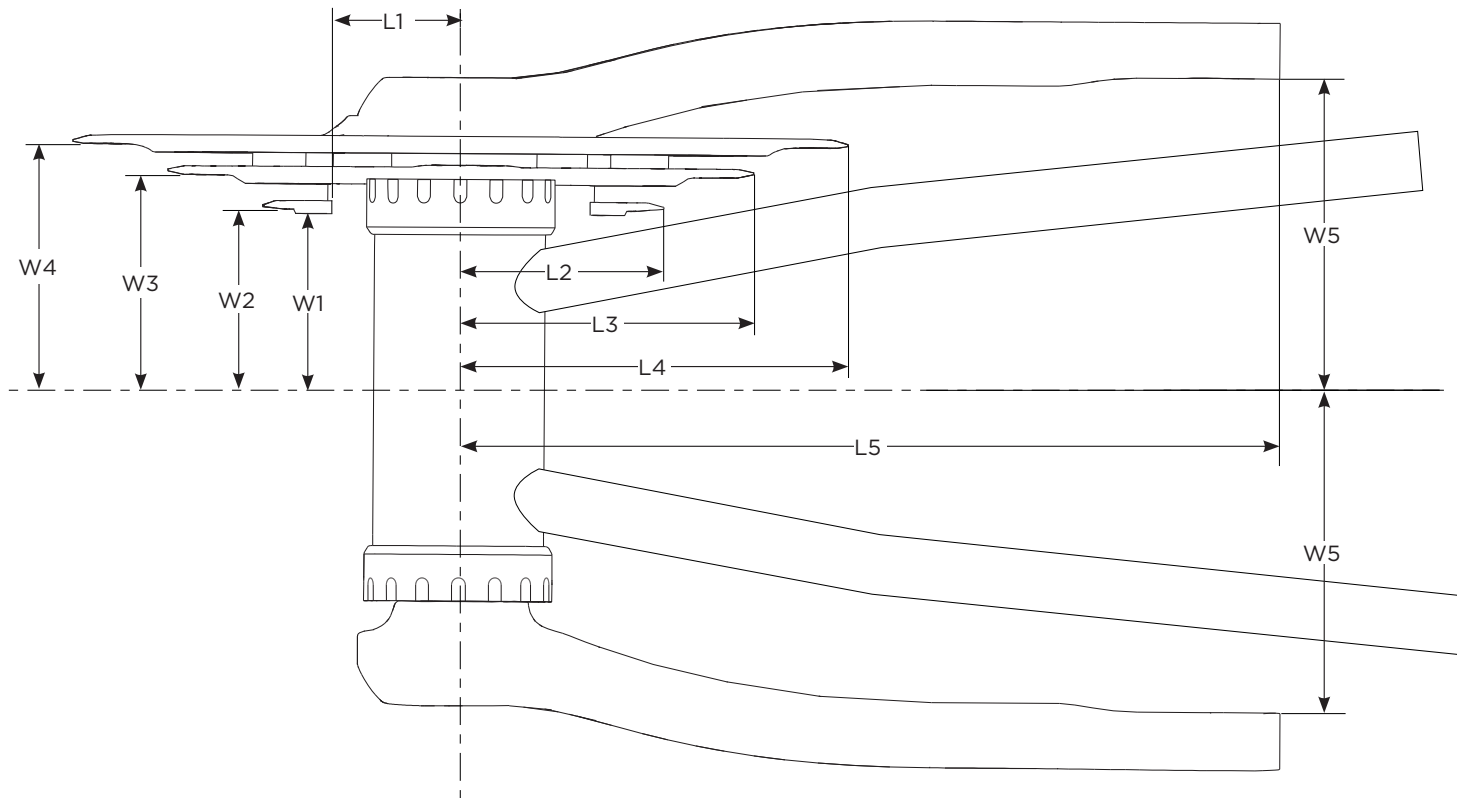
CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
36/22	25 mm	46.7 mm	74.4 mm	78 mm (rockguard)	192 mm (175 mm crank arm lengths)	43 mm	44 mm	52 mm	57.8 mm (guard)	70.5 mm
38/24	24.5 mm	50.7 mm	78.0 mm	82.5 mm (rockguard)		43.5 mm	44.5 mm	52.5 mm	-	
39/26	31 mm	55 mm	81 mm	-						
42/28		60 mm	87 mm	-						
Q-factor :										167.5
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										



X0 Cranksets [3x10]

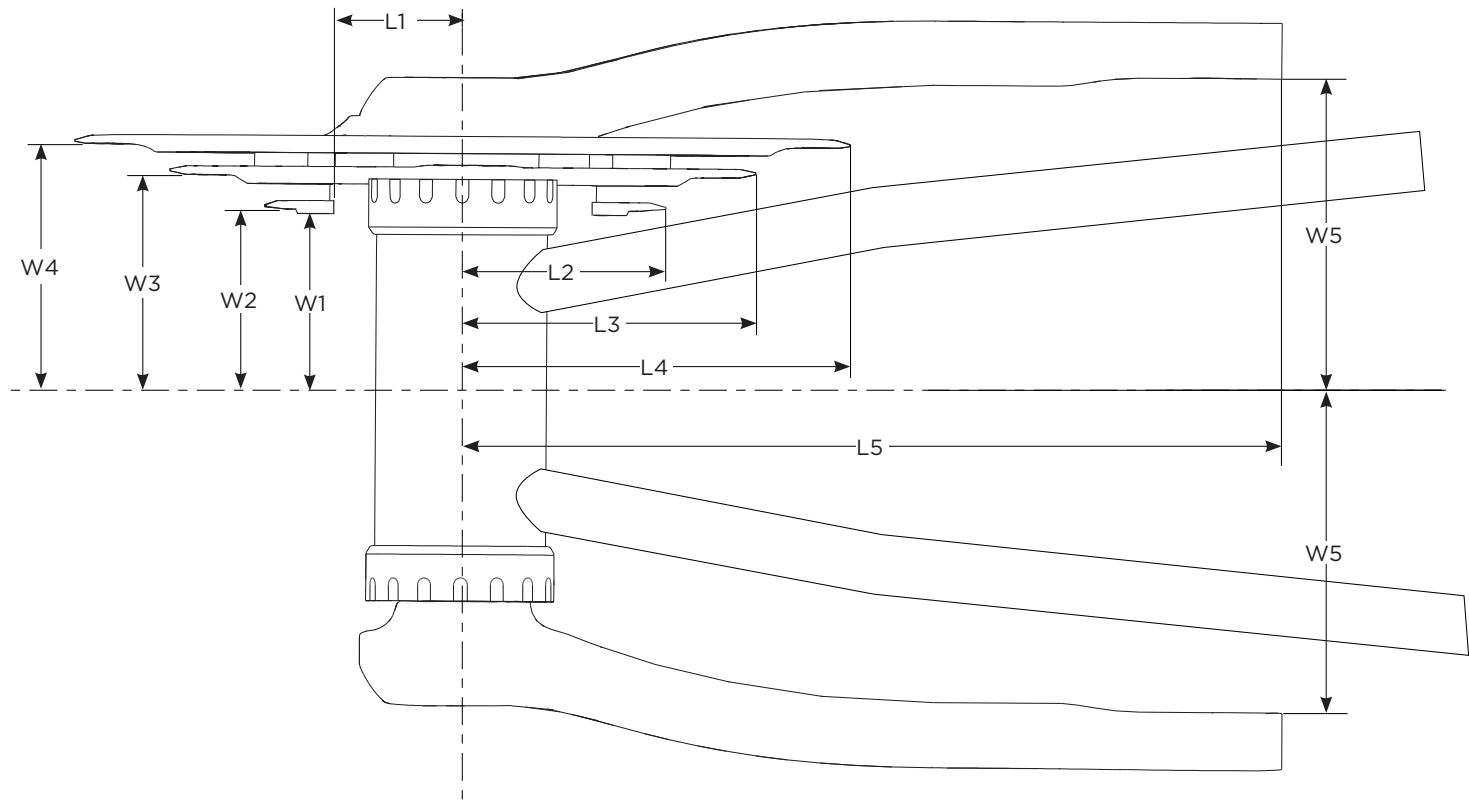
CRANKSET [3x10]

CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
44/33/22	25 mm	47 mm	69 mm	91 mm	192 mm (175 mm crank arm lengths)	41 mm	42 mm	50 mm	57 mm	70.5 mm
										Q-factor : 167.5
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										



X9 Cranksets [2x10]

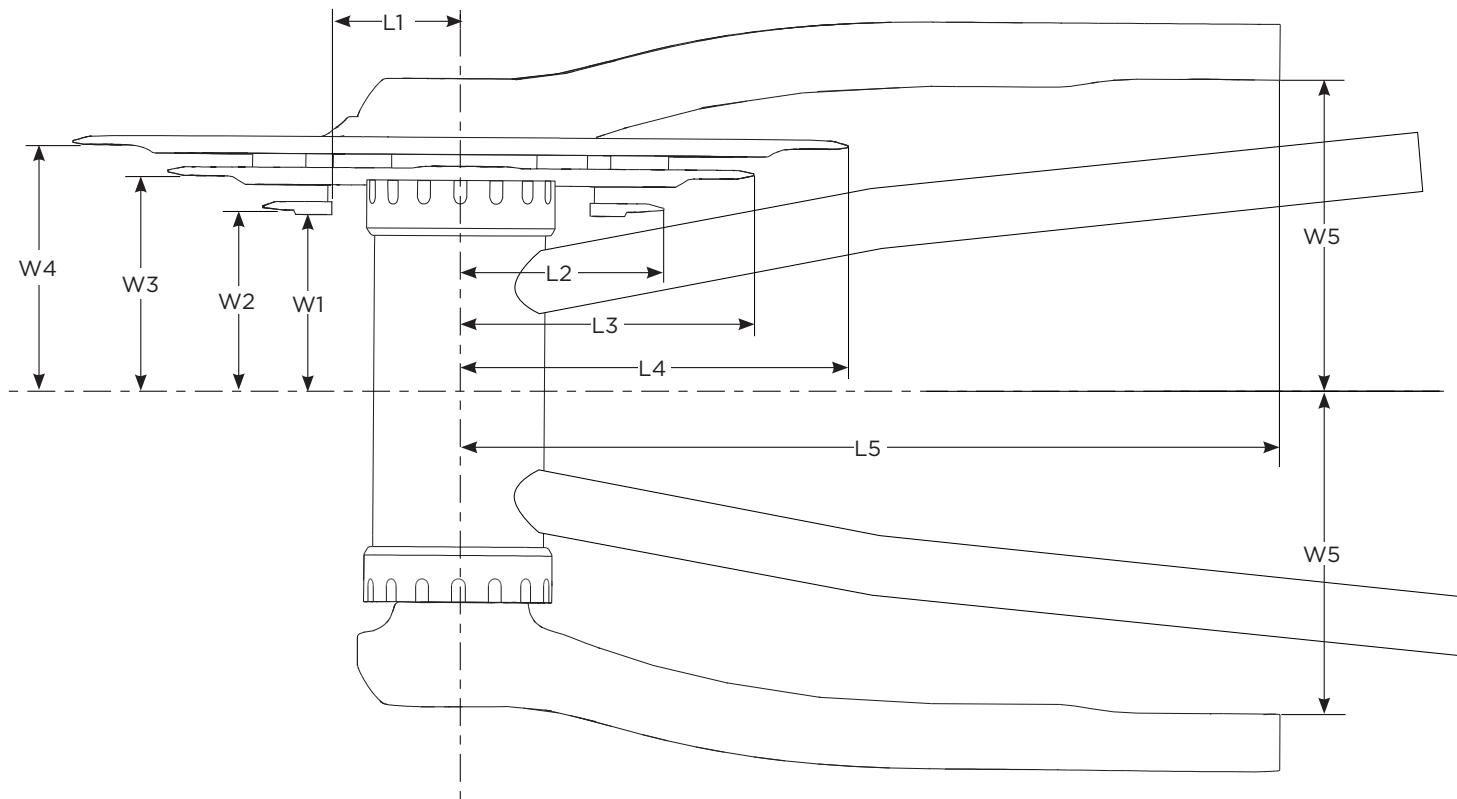
CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
36/22	25 mm	46.7 mm	74.4 mm	78 mm (guard)	192 mm (175 mm crank arm length)	43 mm	44 mm	52 mm	57.8 mm (guard)	72 mm
38/24	24.5 mm	50.7 mm	78 mm	82.5 mm (guard)						
39/26	31 mm	55 mm	81 mm	-		43.5 mm	44.5 mm	52.5 mm	-	
42/28		60 mm	87 mm							
Q-factor :										171
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										



X9 Cranksets [3x10]

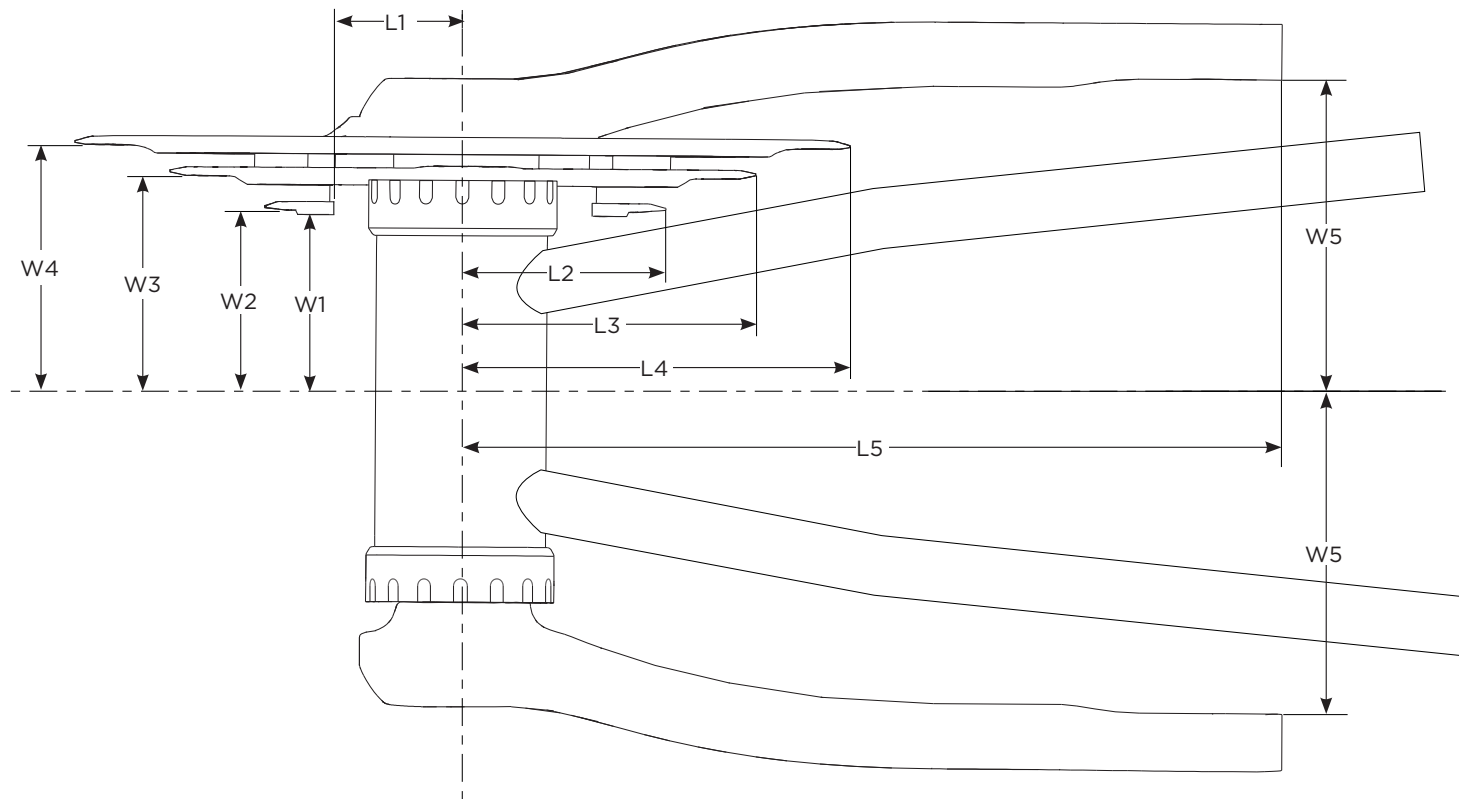
CRANKSET [3x10]

CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
44/33/22	25 mm	47 mm	69 mm	91 mm	192 mm (175 mm crank arm length)	41 mm	42 mm	50 mm	57 mm	72 mm
										Q-factor : 171
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										



X7 Cranksets [2x10]

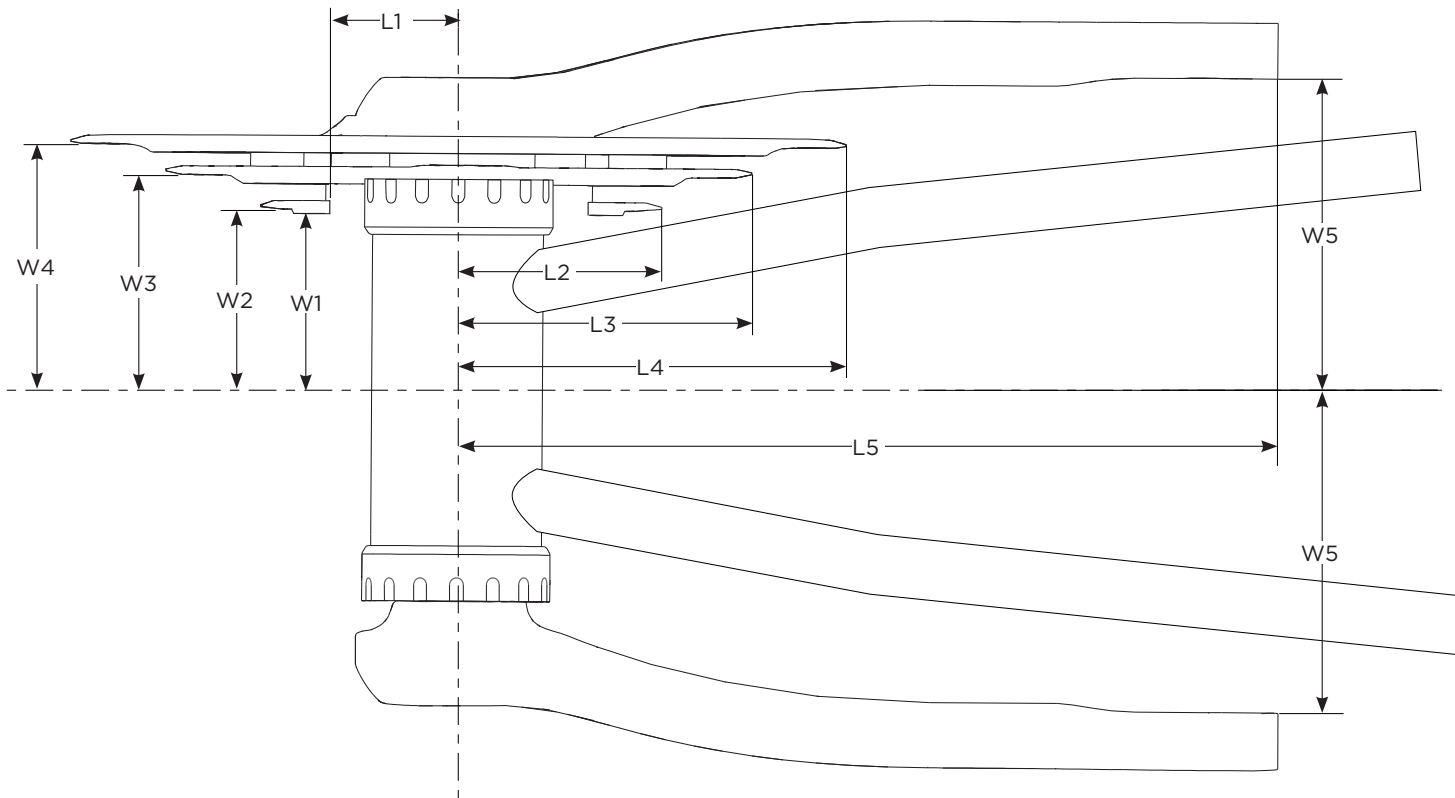
CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
36/22	25 mm	46.7 mm	74.4 mm	78 mm (guard)	192 mm (175 mm crank arm length)	43 mm	44 mm	52 mm	57.8 mm (guard)	70.5 mm
38/24	24.5 mm	50.7 mm	78 mm	82.5 mm (guard)						
39/26	31 mm	55 mm	81 mm	-		43.5 mm	44.5 mm	52.5 mm	-	
42/28		60 mm	87 mm							
										Q-factor : 167.5
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										



X7 Cranksets [3x10]

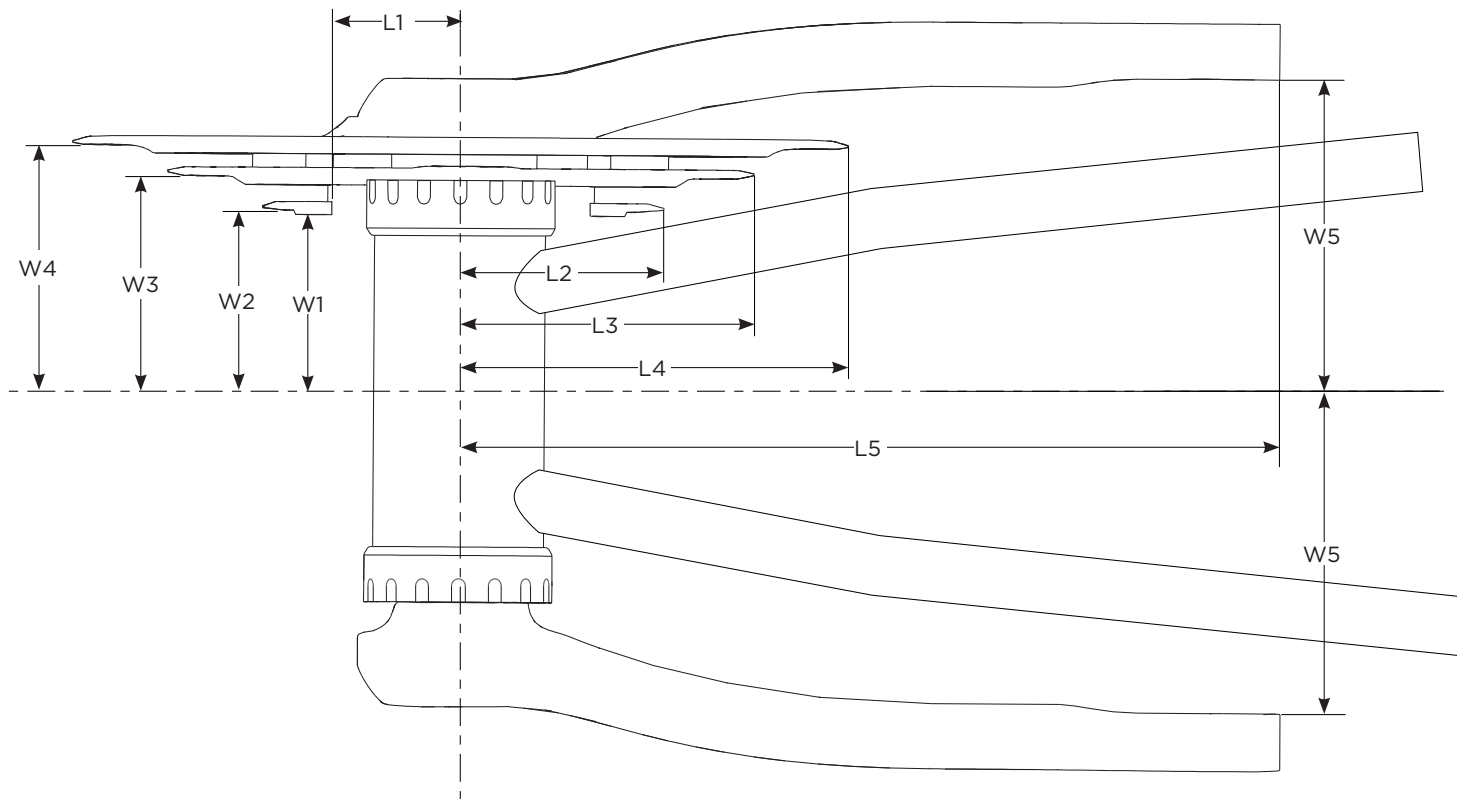
CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
44/33/22	25 mm	47 mm	69 mm	91 mm	191 mm (180 mm crank arm length)	41 mm	42 mm	50 mm	57 mm	70.5 mm
										Q-factor : 167.5
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										

CRANKSET [3x10]



X5 Cranksets [2x10]

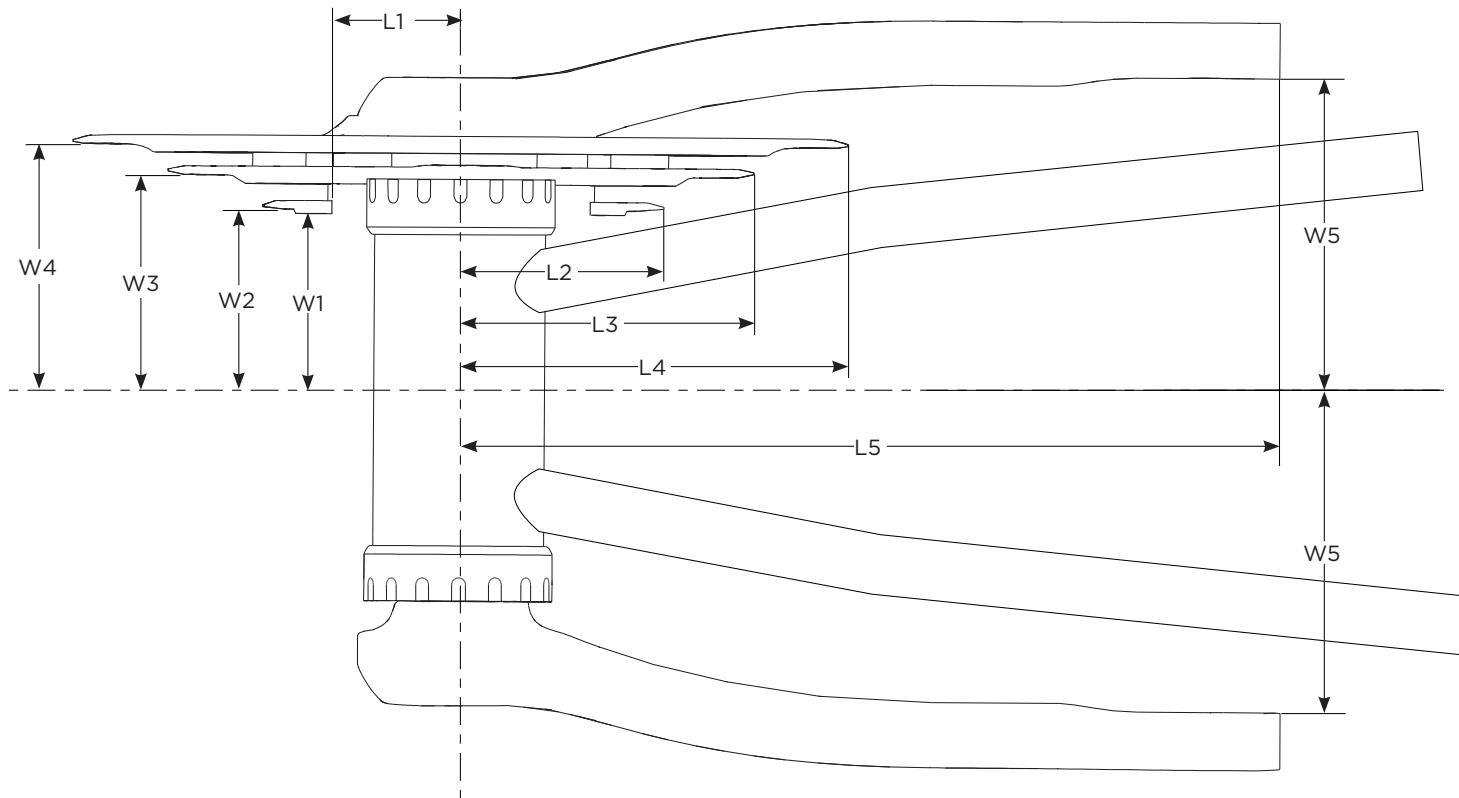
CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
36/22	25 mm	46.7 mm	74.4 mm	78 mm (guard)	192 mm (175 mm crank arm length)	43 mm	44 mm	52 mm	57.8 mm (guard)	72 mm
38/24	24.5 mm	50.7 mm	78 mm	82.5 mm (guard)						
39/26	31 mm	55 mm	81 mm	-		43.5 mm	44.5 mm	52.5 mm	-	
42/28		60 mm	87 mm							
Q-factor :										169
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										



X5 Cranksets [3x10]

CRANKSET FRAME CLEARANCE INFORMATION										
Chain Ring Combination	L1	L2	L3	L4	L5	W1	W2	W3	W4	W5 (min)
44/33/22	25 mm	47 mm	69 mm	91 mm	191 mm (175 mm crank arm length)	41 mm	42 mm	50 mm	57 mm	72 mm
										Q-factor : 169
Bottom Bracket Type(s) : GXP : BB30 : PressFit™ 30 : PressFit™ GXP MTB										

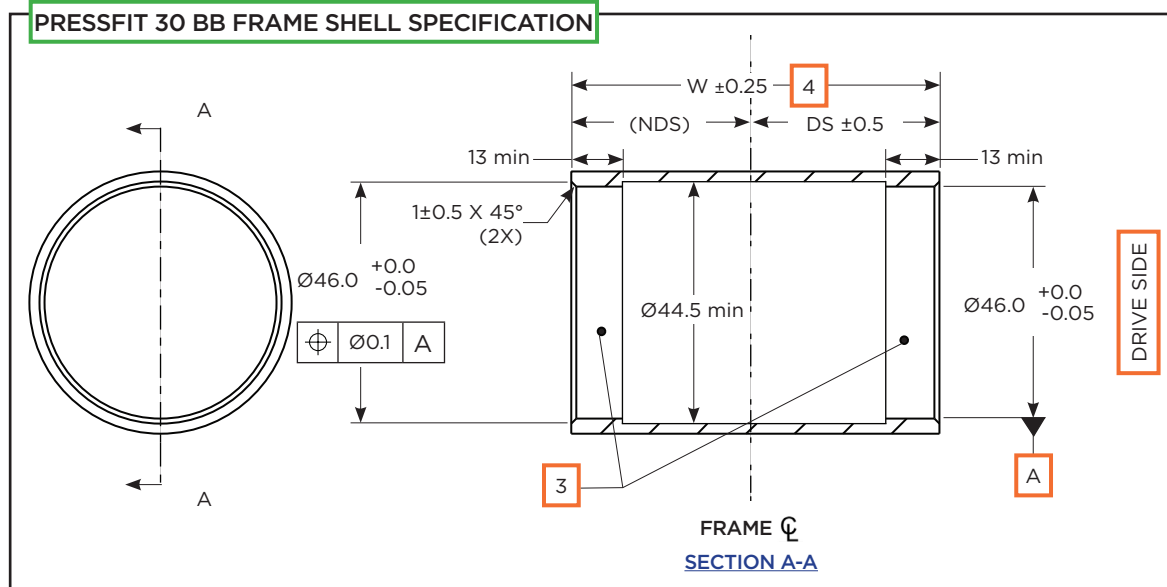
CRANKSET [3x10]



Bottom Brackets

PRESSFIT™ 30 BB

(All dimensions in millimeters unless otherwise indicated - not to scale)



NOTES:

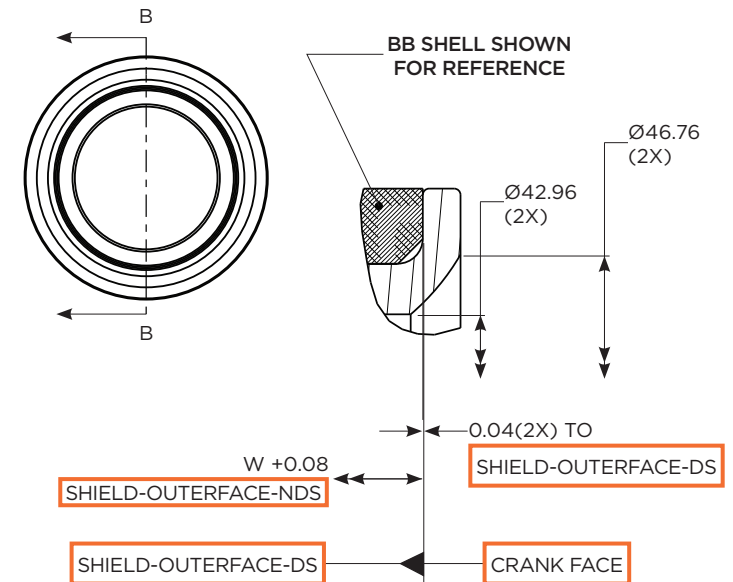
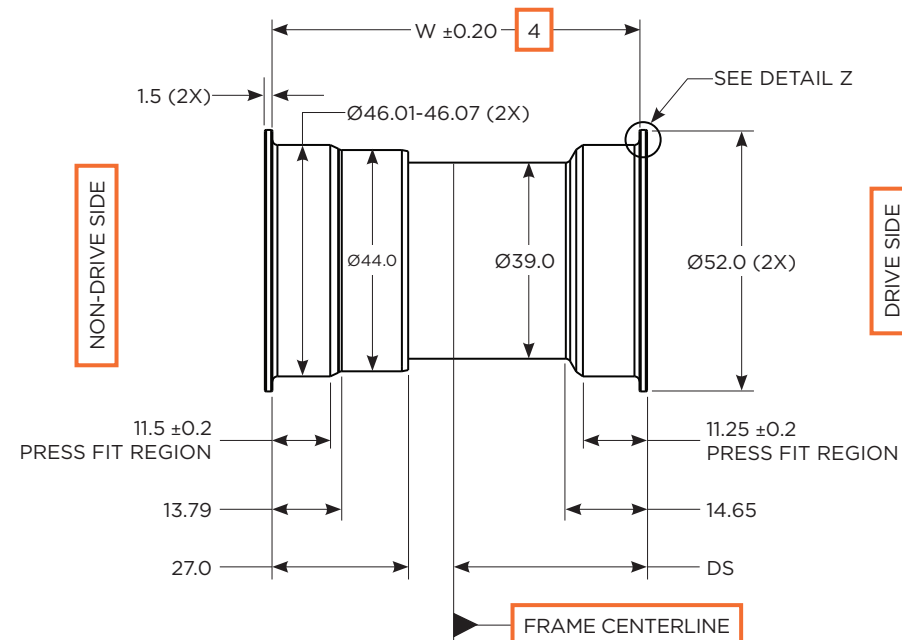
- Dimensions apply after finish.
- Only dimensions essential to bottom bracket press fit and function are shown. All other details are left to the discretion of the frame or crankset designer.

3 Press fit surfaces should be unpainted.

4 Recommend 68 mm, 73 mm, or 83 mm for MTB applications

	Dim 'W'	Dim 'DS'	Dim 'NDS'
PF30 68	68	34	
PF30 73	73	36.5	
PF30 83	83	41.5	

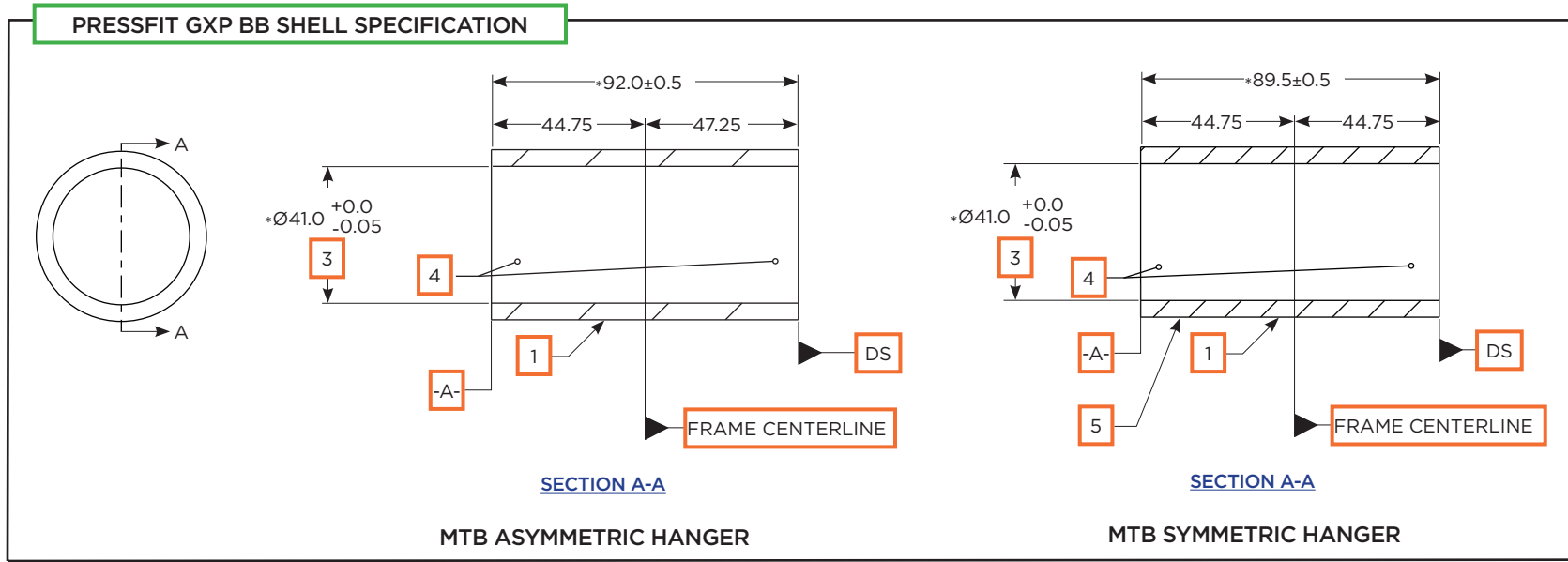
PRESSFIT 30 BB KEY DIMENSIONS



SECTION B-B
DETAIL Z: CRANK - BOTTOM BRACKET INTERFACE

PRESSFIT™ GXP BB

(All dimensions in millimeters unless otherwise indicated - not to scale)



PRESSFIT GXP MTB BB-KEY DIMENSIONS

ITEM NO.	QTY.	DESCRIPTION
1	1	WAVE WASHER
2	1	DS SHIELD
3	1	NDS SHIELD
4	1	DS CUP
5	1	NDS CUP
6	1	DS SHIM WASHER

NOTES:

- 1 PressFit GXP MTB bottom bracket is only compatible with the shown bottom bracket shell specifications.
- 2. Only dimensions essential to bottom bracket press fit and function are shown. Dimensions apply after finish.
- 3 Tolerance applies to depth of 12.00 mm from surface each side. **A**
- 4 Press fit surfaces should be unpainted.
- 5 E-type front derailleurs or captured chainguide mounts cannot be used on carbon fiber frames.
- 6 DS shim washer to be used only on MTB symmetric shell.

