

WORLD TOOL COMPOSITE BOOM - WTCB SERIES

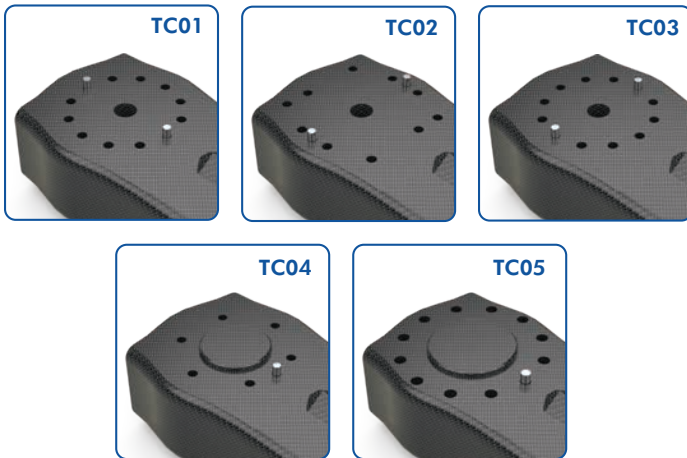
Accelerate® Tooling Collection | Ordering Information

WTCB - TC01 - 90T - 1700 - 4R2T

Robot, Tool Changer or Adapter Plate Mounting

- TC01** 125mm BCD per ISO 9409-1-125-10-M10 (e.g. RTP-800, RTP-1200, ATI-QC-160, ATI-QC-210 or Kawasaki ZT130)
- TC02** Adapter Plate for 11-59D 323327 VKR 125-210 & 11-59D 323330 F.EE Manual Tool Changer
- TC03** 125mm BCD Rotated 90° per ISO 9409-1-125-10-M10 (e.g. RTP-800, RTP-1200, ATI-QC-160, ATI-QC-210 or Kawasaki ZT130)
- TC04** 125mm BCD with Pilot for ISO 9409-1-A125 ABB IRB 6400 or Kawasaki ZT130 L
- TC05** 160mm BCD with Pilot per ISO 9409-1:2004 (e.g. ABB IRB 6650 & IRB 6650S)

See page 7 for more information.



Dowels pins shown for location. Not included.

Tool Branches

- 2R2T** 2 Tool Branch Mounting Locations (End Mount Configurations only)
- 4R2T** 4 Tool Branch Mounting Locations*
*excludes 1094 Boom Length.

Mounting Orientation

- 90C** Center Mount
- 90T** End Mount



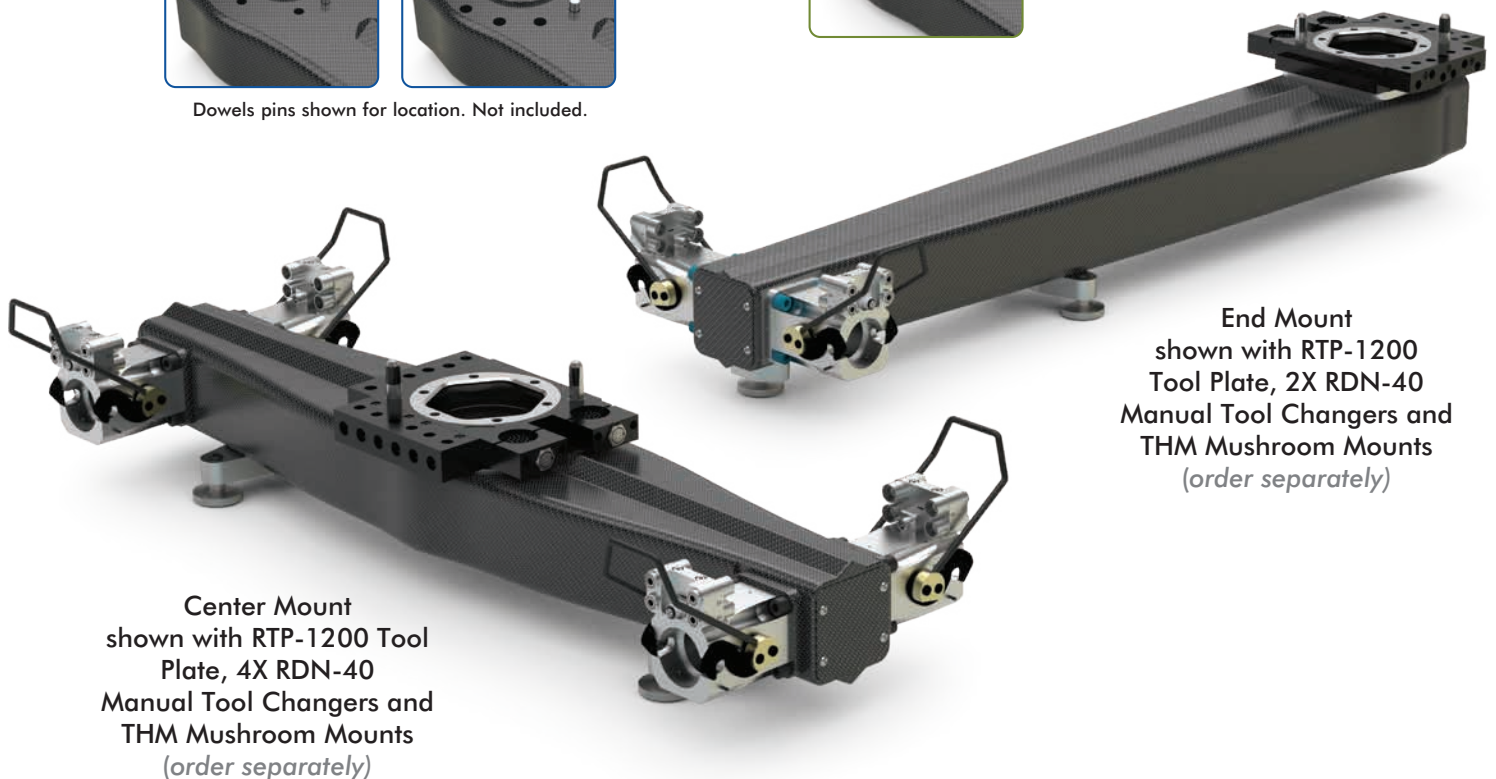
Boom Length

End Mount Configurations

- 1094** 1000mm Length*
- 1500** 1700mm Length
- 1703** 2400mm Length
- *2R2T Tool Branch only.

Center Mount Configurations

- 1000** 1000mm Length
- 1700** 1700mm Length
- 2400** 2400mm Length



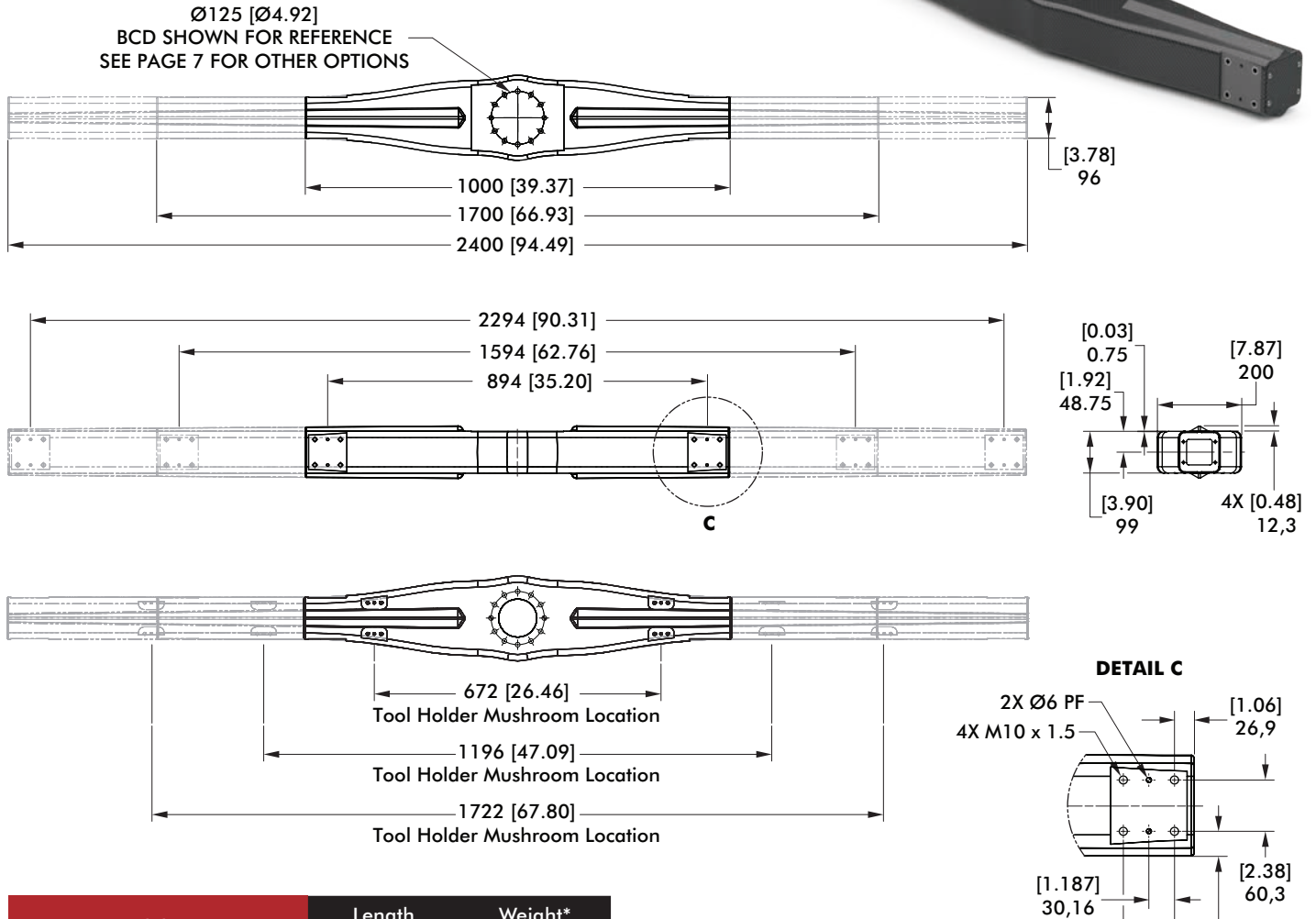
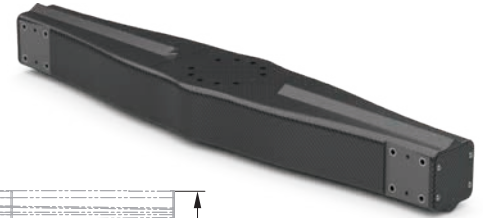
End Mount
shown with RTP-1200
Tool Plate, 2X RDN-40
Manual Tool Changers and
THM Mushroom Mounts
(order separately)

Center Mount
shown with RTP-1200 Tool
Plate, 4X RDN-40
Manual Tool Changers and
THM Mushroom Mounts
(order separately)

WORLD TOOL COMPOSITE BOOM - WTCB SERIES

Accelerate® Tooling Collection | Dimensions and Specifications

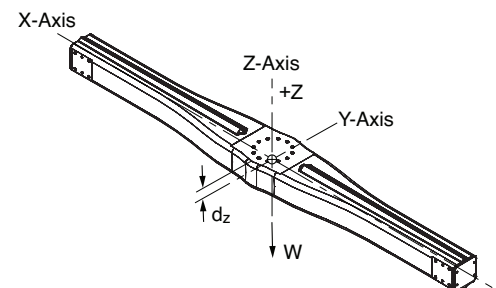
Center Mount with 4 Branches



Model No.	Length mm [in]	Weight* kg [lbs]
WTCB-TCXX-90C-1000-4R2T	1000 [39.37]	9,18 [20.24]
WTCB-TCXX-90C-1700-4R2T	1700 [66.93]	10,79 [23.79]
WTCB-TCXX-90C-2400-4R2T	2400 [94.49]	13,45 [29.65]

*Boom only.

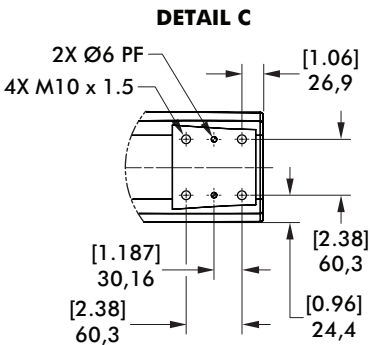
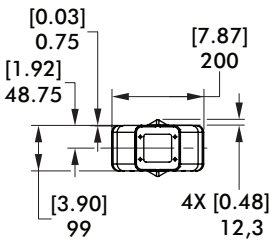
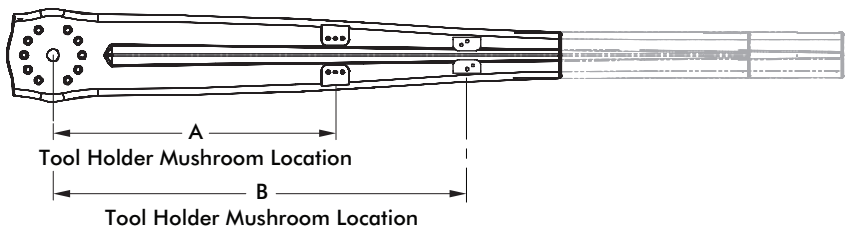
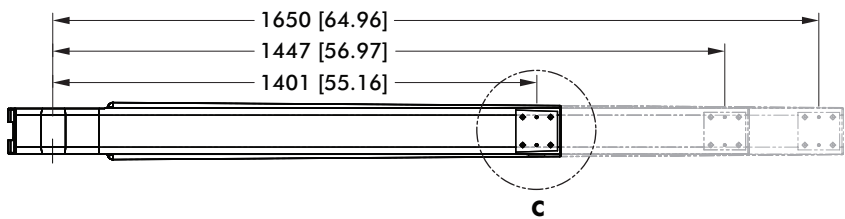
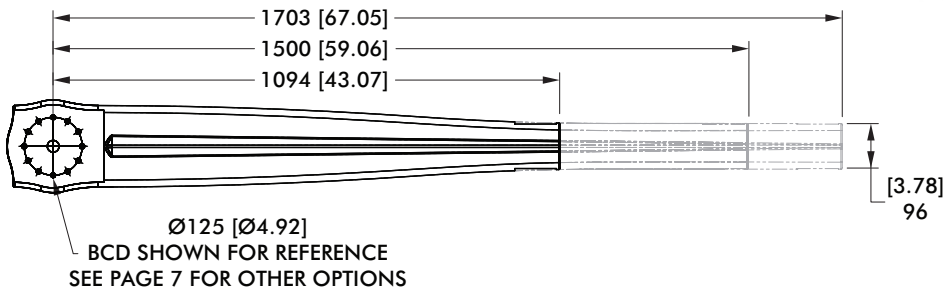
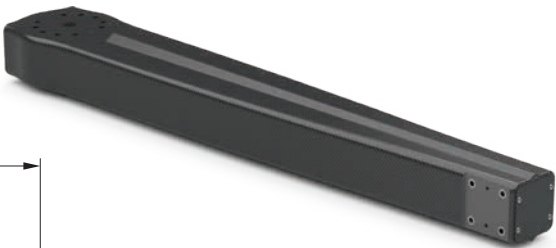
Description	Designation	Units	1000mm	1700mm	2400mm
Mass (Composite Boom Only)	W	[lb] kg	[20.24] 9.18	[23.79] 10.79	[29.65] 13.45
Center of Mass Location X-Axis	d _x	[in] mm	0	0	0
Center of Mass Location Y-Axis	d _y		0	0	0
Center of Mass Location Z-Axis	d _z		[-1.96] -49.8	[1.96] -49.7	[1.94] -49.2
Moment of Inertia at Center of Gravity	L _{xx}	[lb-ft ²] kg-m ²	[0.95] 0.04	[1.04] 0.044	[12.58] 0.53
	L _{yy}		[14.43] 0.608	[42.93] 1.809	[93.59] 3.944
	L _{zz}		[14.78] 0.623	[43.28] 1.824	[94.00] 3.961



WORLD TOOL COMPOSITE BOOM - WTCB SERIES

Accelerate® Tooling Collection | Dimensions and Specifications

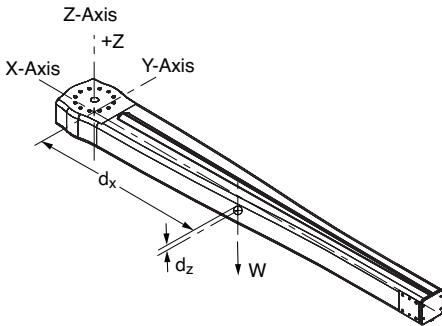
End Mount with 2 Branches



Model No.	A	B	Length mm [in]	Weight* kg [lbs]
WTCB-TCXX-90T-1094-2R2T	608 [23.94]	1041 [40.98]	1094 [43.07]	9,98 [22.0]
WTCB-TCXX-90T-1500-2R2T		1244 [48.98]	1500 [59.06]	11,22 [24.7]
WTCB-TCXX-90T-1703-2R2T	713 [28.07]	1447 [56.97]	1703 [67.05]	11,97 [26.4]

*Boom only.

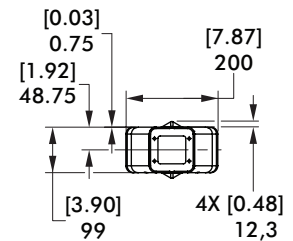
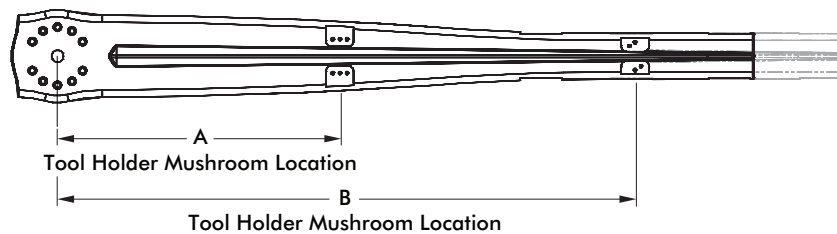
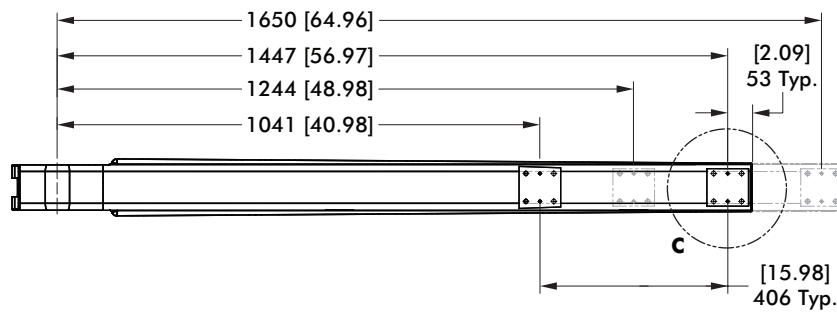
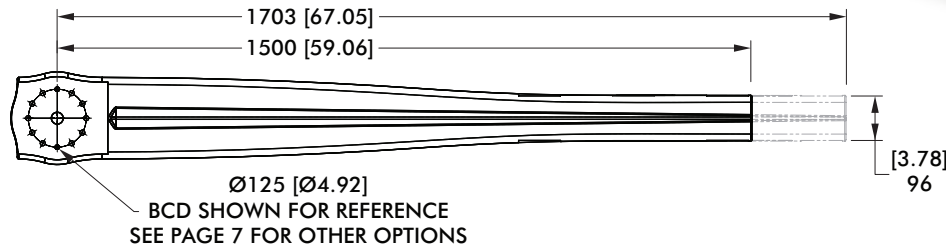
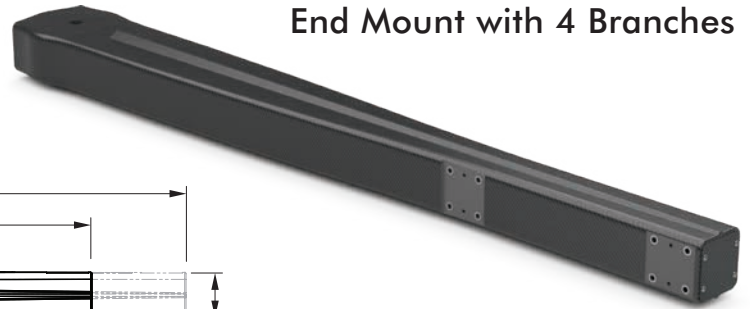
Description	Designation	Units	1094mm	1500mm	1703mm
# of RDN Mount Locations			2	2	2
Mass (Boom Only)	W	[lb] kg	[22.00] 9.98	[24.74] 11.22	[26.39] 11.97
Center of Mass Location	X-Axis	d _x	[14.31] 363.6	[19.41] 486.2	[21.78] 553.3
	Y-Axis	d _y	0	0	0
	Z-Axis	d _z	[-0.0437] -1.111	[-0.0435] -1.104	[-0.0407] -1.033
Moment of Inertia at Center of Gravity	L _{xx}		[1.0204] 0.043	[1.1153] 0.047	[1.1628] 0.049
	L _{yy}	[lb-ft ²] kg-m ²	[29.9477] 1.262	[60.9158] 2.567	[82.9613] 3.496
	L _{zz}		[29.5918] 1.247	[60.5599] 2.552	[82.6054] 3.481



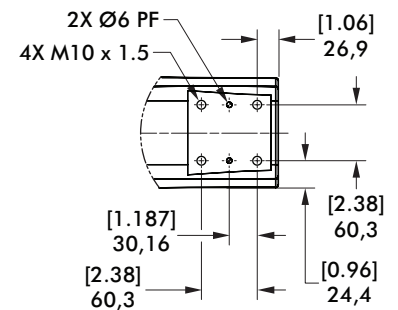
WORLD TOOL COMPOSITE BOOM - WTCB SERIES

Accelerate® Tooling Collection | Dimensions and Specifications

End Mount with 4 Branches



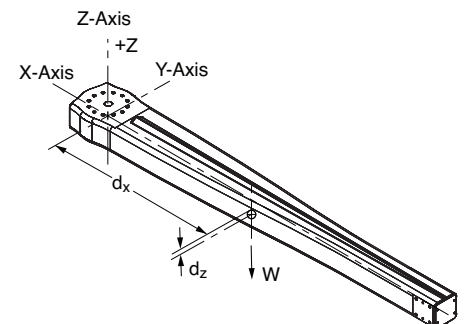
DETAIL C



Model No.	A	B	Length mm [in]	Weight* kg [lbs]
WTCB-TCXX-90T-1500-4R2T	608 [23.94]	1244 [48.98]	1500 [59.06]	11,80 [26.0]
WTCB-TCXX-90T-1703-4R2T	713 [28.07]	1447 [56.97]	1703 [67.05]	12,32 [27.2]

*Boom only.

Description	Designation	Units	1500mm	1703mm
# of RDN Mount Locations			4	4
Mass (Boom Only)	W	[lb] kg	[26.01] 11.8	[27.16] 12.32
Center of Mass Location	X-Axis	d _x	[19.94] 506.4	[22.63] 574.9
	Y-Axis	d _y	0	0
	Z-Axis	d _z	[-0.0428] -1.087	[-0.0306] -0.777
Moment of Inertia at Center of Gravity	L _{xx}		[1.1391] 0.048	[1.1865] 0.05
	L _{yy}	[lb-ft ²] kg-m ²	[63.8821] 2.692	[87.1853] 3.674
	L _{zz}		[63.5262] 2.677	[86.8294] 3.659

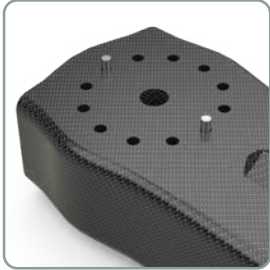


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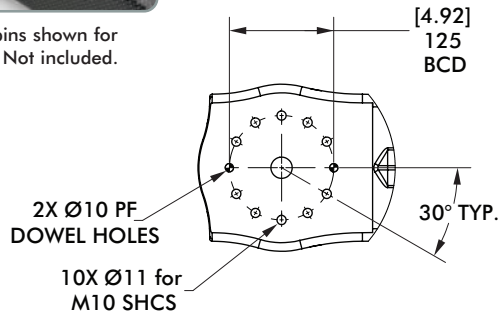
Accelerate® Tooling Collection | Dimensions

Robot or Tool Changer Mounting Patterns

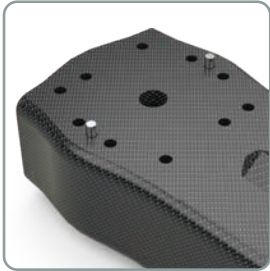
WTCB-TC01



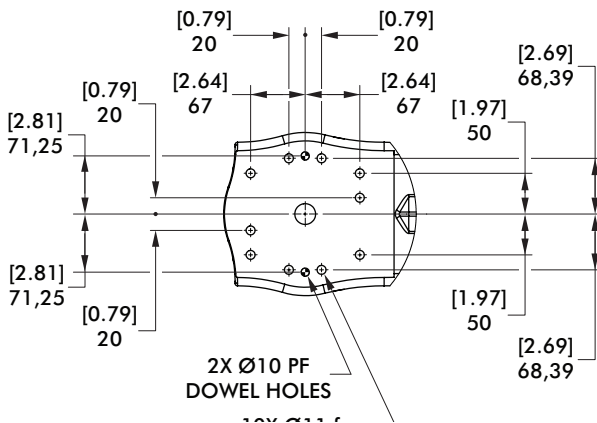
Dowels pins shown for location. Not included.



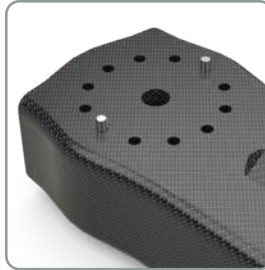
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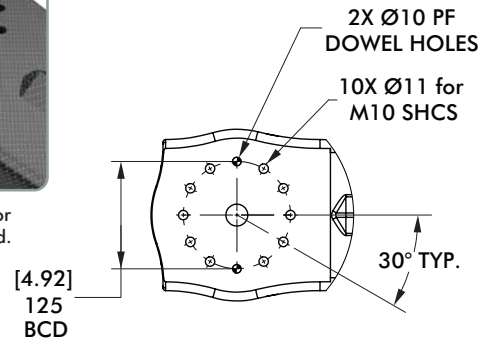
Dowels pins shown for location. Not included.



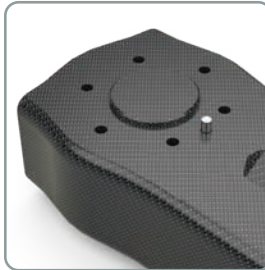
WTCB-TC03



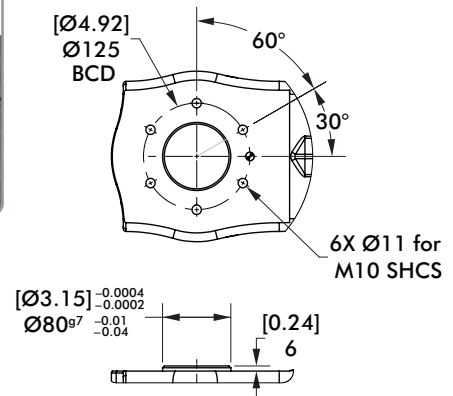
Dowels pins shown for location. Not included.



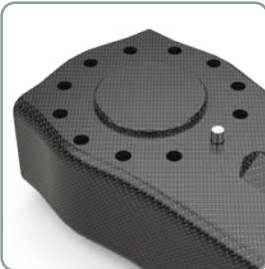
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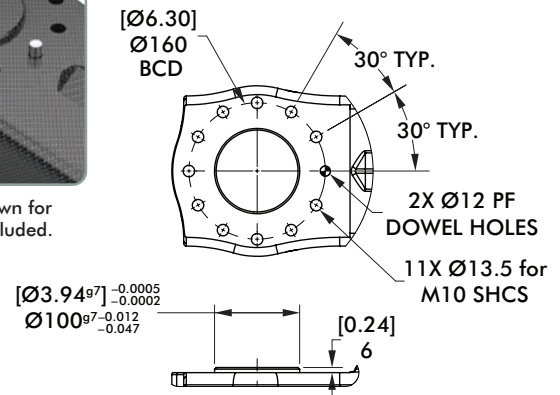
Dowels pins shown for location. Not included.



WTCB-TC05



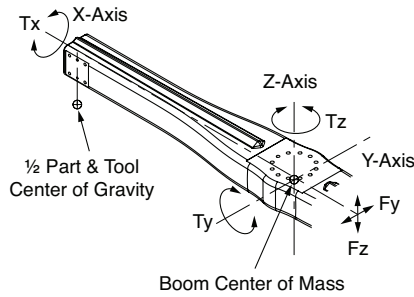
Dowels pins shown for location. Not included.



WORLD TOOL COMPOSITE BOOM - WTCB SERIES

Accelerate® Tooling Collection | Specifications

Center Mount Load Specifications (Max. Loads\Deflections)



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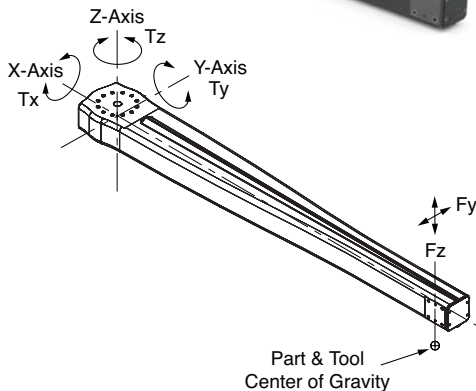


Description	Designation	Units	1000mm	1700mm	2400mm
Boom Maximum Shear Load	F _y	[lbs]	[541] 2405	[494] 2196	[446] 1983
	F _z	N	[440] 1957	[402] 1788	[363] 1613
Static & Dynamic Moment Capacity about X-Axis	T _x	[in-lb] Nm	[5310] 600	[4647] 525	[3983] 450
End of Boom Twist @ Moment Capacity about X-Axis			0.8°	2°	2.6°
Static & Dynamic Moment Capacity about Y-Axis	T _y	[in-lb] Nm	[7744] 875	[12612] 1425	[16374] 1850
End of Boom Deflection @ Moment Capacity about Y-Axis		[in] mm	[0.02] 0.44	[0.09] 2.3	[0.24] 6.18
Static & Dynamic Moment Capacity about Z-Axis	T _z	[in-lb] Nm	[9515] 1075	[15489] 1750	[20135] 2275
End of Boom Deflection @ Moment Capacity about Z-Axis		[in] mm	[0.01] 0.27	[0.06] 1.41	[0.15] 3.79
Static & Dynamic Moment Capacity Combined about X-Axis plus Z-Axis	T _x	[in-lb] Nm	[5310] 600	[4647] 525	[3983] 450
	T _z		[9515] 1075	[15489] 1750	[20135] 2275
End of Boom Deflection @ Combined Moment Capacity about X-Axis plus Z-Axis		[in] mm	[0.02] 0.51	[0.09] 2.3	[0.19] 4.92
Fatigue Life Testing		cycles		9,000,000	

Notes:

1. Load specifications and deflection for 1/2 of the boom
2. Load specifications include tool changers, hanger bracket part, tooling and miscellaneous components

End Mount Load Specifications (Max. Loads\Deflections)



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Description	Designation	Units	1094mm	1500mm	1703mm
Boom Maximum Shear Load	F _y	[lbs]	[696] 3098	[637] 2833	[634] 2818
	F _z	N	[578] 2570	[544] 2419	[538] 2394
Static & Dynamic Moment Capacity about X-Axis	T _x	[in-lb] Nm	[7966] 900	[7966] 900	[7966] 900
End of Boom Twist @ Moment Capacity about X-Axis			1.5°	3°	4°
Static & Dynamic Moment Capacity about Y-Axis	T _y	[in-lb] Nm	[23676] 2675	[30978] 3500	[34960] 3950
Deflection @ Moment Capacity about Y-Axis		[in] mm	[0.21] 5.34	[0.53] 13.5	[0.78] 19.8
Static & Dynamic Moment Capacity about Z-Axis	T _z	[in-lb] Nm	[28544] 3225	[36288] 4100	[41156] 4650
Deflection @ Moment Capacity about Z-Axis		[in] mm	[0.11] 2.7	[0.26] 6.63	[0.38] 9.77
Static & Dynamic Moment Capacity Combined about X-Axis plus Z-Axis	T _x	[in-lb] Nm	[7966] 900	[7966] 900	[7966] 900
	T _z		[28544] 3225	[36288] 4100	[41156] 4650
Deflection @ Combined Moment Capacity about X-Axis plus Z-Axis		[in] mm	[0.12] 3.04	[0.34] 8.73	[0.47] 11.9
Fatigue Life Testing		cycles		9,000,000	

Notes:

1. Load specifications include mass of complimentary components and part & tooling weight