

T-Case™ LinearRace® Shafting

High-quality, European-specification shafting for automation applications

Thomson T-Case™ LinearRace® Shafting: Manufactured To Withstand Tough Usage And Deliver Optimal Performance

The T-Case Series is the latest addition to the Thomson shafting product line and a robust, economical solution for automation applications.

Strong material

The steel used in hardened and ground T-Case is 1.1213 / CF53 for solid and 1.1221 / C60E for tubular shafts. When combined with superior grinding processes, the result is a shaft that withstands use in even the most demanding environments.

Case hardness

T-Case shafts are hardened to an exact specification of 60 - 63 HRC, delivering long life in transport-grade applications.

Precise diameters

T-Case is manufactured with a diameter tolerance of h6, ensuring that your shaft is consistent from end to end.

Quality built in

Lengths are manufactured to the highest-quality standards in an ISO 9001:2008 registered facility.

Chrome-plated option

Chrome plating is available with a standard thickness of 8 - 15 µm. Choose chrome plating for applications in environments where corrosion resistance is needed.

Cut to length

Shafting can be cut and machined at the factory to meet your exact specifications, eliminating the need for a secondary step after shipping.

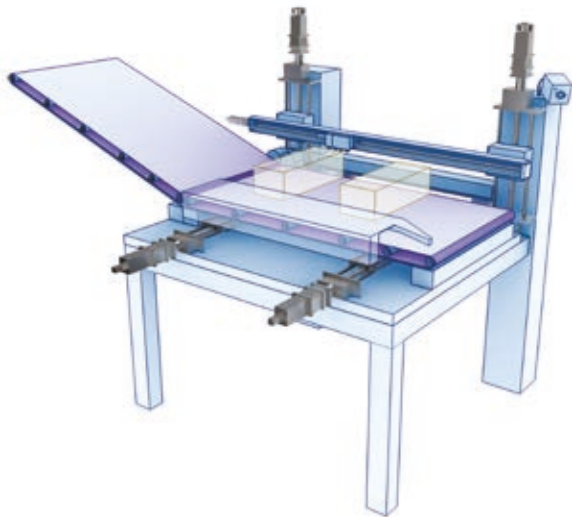
Why choose Thomson T-Case?

- **Fast lead times within a week**
- **More economical, transport-grade option compared to 60 Case® LinearRace shafting**
- **Get application and product engineering expertise from Thomson to help you optimise your machine**
- **Visit www.thomsonlinear.com/tcase for additional information**



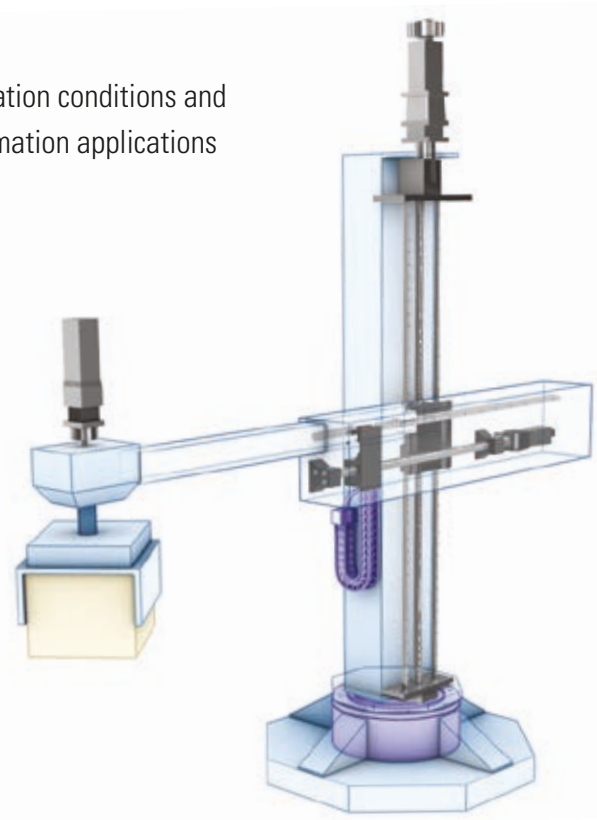
Application Examples

Thomson T-Case shafting is tolerant of less perfect installation conditions and offers great flexibility. It's ideal for a broad variety of automation applications and in multi-axis motion designs.



Label Printing / Scanning

With Thomson T-Case pre-assembled in a linear system, high speed and flexibility can be achieved for this three-axis gantry robot. It's transporting boxes of varying size along a conveyor belt to be scanned or printed.



Pick-and-Place / Palletising

Thomson T-Case shafting can be configured into small and large multi-axis motion solutions such as this four-axis pick-and-place robot for palletising and loading.

How does the T-Case compare to the 60 Case® Shafting?

T-Case vs. 60 Case Shafting		
	T-Case	60 Case
Application Grade	Transport	Precision
Diameter Units	mm	mm + inch
Material	CF53 – 1213 Carbon Steel (Solid Shafts) C60E – 1221 Carbon Steel (Tubular Shafts)	1566 Carbon Steel
Case Depth	0.8 - 1.6 mm	1.5 - 2.2 mm
Surface Finish	max. 0.25 RA	max 0.2 RA
Roundness	0.002 - 0.003 mm	0.002 mm

Ordering Key & Sizes

Ordering Key for Hardened and Ground T-Case Shafts

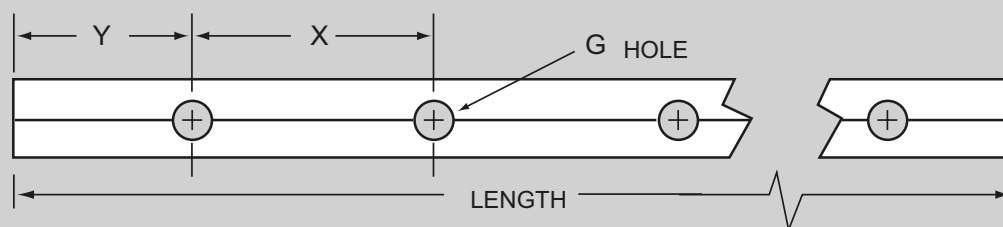
1	2	3	4	5	6
8	TCM	-	CPPE	CTL	2000
1. Nominal Diameter [mm] T-Case Solid Shaft: 8, 10, 12, 16, 20, 25, 30, 40, 50, 60, 80 T-Case Tubular Shaft: 16, 20, 25, 30, 40, 50, 60			4. Material Finish CPPE Chrome Plated Plain Ends		
2. Type TCM T-Case Metric TTM T-Case Tubular Metric			5. Type CTL Cut to length ⁽¹⁾ SM Special Machined (according customer drawing)		
3. Options - None T1* Predrilled T1 Hole Pattern T2* Predrilled T2 Hole Pattern T3* Predrilled T3 Hole Pattern			6. Length [mm] 100 - 6000		
Thomson T-Case shafting typically shipping within days. Contact Thomson Customer Service for lead times.					

Sizes

Nominal Diameter [mm]	Nominal I.D. [mm]	Basic Part Number	Diameter Tolerance ISO h6 [µm]	Min. Usable Length [mm]	Hardness Depth [mm]	Straightness [mm/meter]	Max. Roundness [µm]	Taper max [µm]	Weight per Meter [kg]
T-Case Solid Shafting									
8	–	08 TCM	0 / -9	6000	0.6 - 1.2	0.15	2	2	0.4
10	–	10 TCM	0 / -9	6000	0.6 - 1.2	0.15	2	2	0.6
12	–	12 TCM	0 / -11	6000	0.6 - 1.3	0.15	2	2	0.9
16	–	16 TCM	0 / -11	6000	0.6 - 1.3	0.15	2	2	1.6
20	–	20 TCM	0 / -13	6000	0.9 - 1.8	0.1	2	2	2.5
25	–	25 TCM	0 / -13	6000	0.9 - 1.8	0.1	2	2	3.9
30	–	30 TCM	0 / -13	6000	0.9 - 1.8	0.1	3	3	5.5
40	–	40 TCM	0 / -16	6000	1.5 - 1.8	0.1	3	3	9.9
50	–	50 TCM	0 / -16	6000	1.5 - 1.8	0.1	4	4	15.4
60	–	60 TCM	0 / -19	6000	2.2 - 3.9	0.1	4	4	22.2
80	–	80 TCM	0 / -19	6000	2.2 - 3.9	0.1	5	5	39.5
T-Case Tubular Shafting									
16	7	16 TTM CTL	0 / -11	6000	0.6 - 1.2	0.15	2	2	1.3
20	14	20 TTM CTL	0 / -13	6000	0.9 - 1.8	0.15	2	2	1.3
25	15	25 TTM CTL	0 / -13	6000	0.9 - 1.8	0.1	2	2	2.5
30	19	30 TTM CTL	0 / -13	6000	0.9 - 1.8	0.1	2	2	3.3
40	26	40 TTM CTL	0 / -16	6000	1.5 - 2.8	0.1	2	2	5.7
50	29	50 TTM CTL	0 / -16	6000	1.5 - 2.8	0.1	2	2	10.2
60	36	60 TTM CTL	0 / -19	6000	2.2 - 3.9	0.1	3	3	14.2

Standard Options

Predrilled Shafting (T1, T2 and T3)



Y = distance from end of rail to the center of first mounting hole, Y1 = Y2 unless specified.

Nominal Diameter [mm]	Basic Part Number	Diameter Tolerance ISO h6 [μm]	X Distance [mm]	G Standard Thread Size	Thread depth [mm]	Min. Usable Length [mm]	Hardness Depth [mm]	Straightness [mm/meter]	Max. Roundness [μm]	Taper max [μm]	Weight per Meter [kg]
12	12 TCM T1	0 / -11	75	M4	8	6000	0.6 - 1.3	0.15	2	2	0.9
16	16 TCM T1	0 / -11	75	M5	10	6000	0.6 - 1.3	0.15	2	2	1.6
20	20 TCM T1	0 / -13	75	M6	13	6000	0.9 - 1.8	0.1	2	2	2.5
25	25 TCM T1	0 / -13	75	M8	14	6000	0.9 - 1.8	0.1	2	2	3.9
30	30 TCM T1	0 / -13	100	M10	17	6000	0.9 - 1.8	0.1	3	3	5.5
40	40 TCM T1	0 / -16	200	M10	20	6000	1.5 - 1.8	0.1	3	3	9.9
50	50 TCM T1	0 / -16	200	M12	23	6000	1.5 - 1.8	0.1	4	4	15.4
12	12 TCM T2	0 / -11	120	M4	8	6000	0.6 - 1.3	0.15	2	2	0.9
16	16 TCM T2	0 / -11	100	M5	10	6000	0.6 - 1.3	0.15	2	2	1.6
20	20 TCM T2	0 / -13	100	M6	13	6000	0.9 - 1.8	0.1	2	2	2.5
25	25 TCM T2	0 / -13	120	M8	14	6000	0.9 - 1.8	0.1	2	2	3.9
30	30 TCM T2	0 / -13	150	M10	17	6000	0.9 - 1.8	0.1	3	3	5.5
40	40 TCM T2	0 / -16	300	M10	20	6000	1.5 - 1.8	0.1	3	3	9.9
50	50 TCM T2	0 / -16	300	M12	23	6000	1.5 - 1.8	0.1	4	4	15.4
16	16 TCM T3	0 / -11	150	M5	10	6000	0.6 - 1.3	0.15	2	2	1.6
20	20 TCM T3	0 / -13	150	M6	13	6000	0.9 - 1.8	0.1	2	2	2.5
25	25 TCM T3	0 / -13	200	M8	14	6000	0.9 - 1.8	0.1	2	2	3.9
30	30 TCM T3	0 / -13	200	M10	17	6000	0.9 - 1.8	0.1	3	3	5.5

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T-Case_LinearRace_Shafting_BRUK-0026-02 | 20180320SK

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Linear Motion. Optimized.[™]