

NuStep® T5/T5^{XR}

Recumbent Cross Trainer Specifications

Overall Features

- User controlled step length up to 8½" (21.5 cm)
- Machine footprint:
 - Machine: 28" x 73" (71cm x 185 cm)
 - Required free area: 76" x 97" (193cm x 246cm)
- StrideLock® to immobilize arms and pedals
- Sturdy grab ring to support user during ingress / egress
- Easy startup with no button press required
- Built-in *Transporter* ball receiver
- Free-standing, cordless design for users with 60+SPM avg.
- Step-through height of 3" to 4" (8 to 10cm)
- Fits users from 4'6"-6'7" (137-200cm) in height
- User weight capacity T5=500 lbs (227kg) T5^{XR}=600 (272 kg)
- Latex free construction

Display

- Easy-to-use one button quick start & reset
- 7" Diagonal color LCD display
- *Manager Mode* option to customize default settings
- Polar® telemetry heart rate monitoring
- Provides seat position readout on screen
- Audible feedback with volume control
- 3 Minute console shut-down + 15 minute *Extended Pause* option
- Welcome screen language selection
- 9 GUI languages to select from: Chinese, Danish, Dutch, English, French, German, Italian, Japanese, Spanish
- USB port for *Data Logging* and software updates
- Info button with context sensitive help
- Provides workout tracking by user ID
- 8 Standard Workout programs (T5 & T5^{XR})
- Advanced (T5^{XR} only) programs: Heart rate control, constant power, constant speed, 2 exercise testing protocol programs

Seat

- Seat adjustment along the rail of 18" (46 cm)
- Seat cushion height of 21½" – 24" (55 cm – 61 cm)
- Seat width: standard = 18" (46cm), wide = 22" (56cm)
- 360° Ball bearing swivel seat which locks every 45 degrees
- Integrated sturdy armrests to support user during ingress / egress
- Large non-handed accessible rail / swivel adjustment levers
- Ergonomically designed with high 19 ½" (50 cm) contoured back
- Easy-to-clean heavy-duty vinyl seat covering
- Integrated water bottle holder
- 10° Seatback recline adjustability (T5^{XR} only)

Frame, Rail & Covers

- Heavy-duty welded steel frame
- Rust resistant coatings on all parts
- Stable, 5-point contact with floor; including two leveling feet
- Strong, high-impact polystyrene easy-to-clean covers

Arms and Handles

- Anodized aluminum arms with rubber handgrips
- Handle adjustment of 18" (46 cm)
- Clamshell style upper arm lock
- 40° Rotational hand grip adjustment (T5^{XR} only)



Drivetrain / Resistance System

- Instant freewheel capability
- 15 Workload levels
- Hybrid brake-generator resistance range of 0 -1400 watts
- Self-powered for users who average above 60 SPM.
- Smooth stepping motion
- Quiet, high-performance poly-v and timing belts
- Durable maintenance-free sealed roller bearings
- 15W AC Adapter power available if needed

Foot pedals

- Durable molded plastic pedals with non-slip insert
- 4-bar linkage to stabilize pedal angle through stepping range
- Slip resistant pedal heel cup
- Integrated *Foot Secure System* mounts
- Included Foot Secure System (T5^{XR} only)
- Offers 10° of dorsiflexion and 22° plantar flexion (T5^{XR} only)
- Three locking positions for flex pedal (T5^{XR} only)

Unit Dimensions

	Unit only	Fully Pkg.	Low Profile Pkg.
• Length	73" (185 cm)	77" (196 cm)	77" (196 cm)
• Width	30" (76 cm)	30 ½" (77 cm)	30 ½" (77 cm)
• Height	46" (117 cm)	52" (132 cm)	44 ½" (113 cm)
• T5 Wt.	285 lbs (129 kg)	389 lbs (176 kg)	389 lbs (176 kg)
• T5 ^{XR} Wt.	298 lbs (135 kg)	402 lbs (182 kg)	402 lbs (182 kg)

Warranty and Quality

- Limited 10-year frame, 5-year parts and 1-year labor warranty (US and Canada)
- Patents 6,042,518; 6,361,479; 6,666,799; 7,775,942, D610,635 and patents pending

Directives and Standards

- Medical Device Directive 93/42/EEC
- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- RoHS Directive 2011/65/EU
- R&TTE Directive 1999/5/EC
- EN20957-1:2013 Class SB; EN 50581:2012; EN 55011:2009/A1:2010 Group1, Class B; EN 60335-1:2002 +A15:2011; EN60601-1:2006; EN60601-1-2:2007; EN957-8:1998; ISO 14971:2012

Awards / Certifications

- Arthritis Foundation Ease-of-Use Commendation
- 2009 Gold-level MDEA Award winner T5^{XR}

NuStep® T5/T5^{XR} Recumbent Cross Trainer

Predicted Metabolic Equivalents

Predicted METs equation as a function of power and weight

Weight in kilograms → METs = $(-171.433+(6.565*wt)+(10.505*watts))/(wt*3.5)$

Weight in pounds → METs = $(-171.433+(6.565*(wt/2.204))+(10.505*watts))/((wt/2.204)*3.5)$

		User weight																				
		100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600
		45	57	68	79	91	102	113	125	136	147	159	170	181	193	204	215	227	238	249	261	272
Power [Watts]	25	2.5	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	50	4.1	3.7	3.4	3.1	3.0	2.9	2.8	2.7	2.6	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2
	75	5.8	5.0	4.5	4.1	3.8	3.6	3.4	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.5
	100	7.4	6.3	5.6	5.0	4.6	4.3	4.1	3.9	3.7	3.6	3.5	3.4	3.3	3.2	3.1	3.0	3.0	2.9	2.9	2.8	2.8
	125	9.1	7.6	6.7	6.0	5.5	5.1	4.8	4.5	4.3	4.1	3.9	3.8	3.7	3.6	3.5	3.4	3.3	3.2	3.2	3.1	3.1
	150	10.7	9.0	7.8	6.9	6.3	5.8	5.4	5.1	4.8	4.6	4.4	4.2	4.1	4.0	3.8	3.7	3.6	3.6	3.5	3.4	3.3
	175	12.4	10.3	8.9	7.9	7.1	6.5	6.1	5.7	5.4	5.1	4.9	4.7	4.5	4.3	4.2	4.1	4.0	3.9	3.8	3.7	3.6
	200	14.0	11.6	10.0	8.8	8.0	7.3	6.7	6.3	5.9	5.6	5.3	5.1	4.9	4.7	4.6	4.4	4.3	4.2	4.1	4.0	3.9
	225	15.7	12.9	11.1	9.8	8.8	8.0	7.4	6.9	6.5	6.1	5.8	5.6	5.3	5.1	4.9	4.8	4.6	4.5	4.4	4.3	4.2
	250	17.3	14.2	12.2	10.7	9.6	8.7	8.1	7.5	7.0	6.6	6.3	6.0	5.7	5.5	5.3	5.1	5.0	4.8	4.7	4.6	4.5
	275		15.6	13.3	11.7	10.4	9.5	8.7	8.1	7.6	7.1	6.8	6.4	6.2	5.9	5.7	5.5	5.3	5.1	5.0	4.9	4.7
	300		16.9	14.4	12.6	11.3	10.2	9.4	8.7	8.1	7.7	7.2	6.9	6.6	6.3	6.0	5.8	5.6	5.5	5.3	5.1	5.0
	325		18.2	15.5	13.5	12.1	11.0	10.0	9.3	8.7	8.2	7.7	7.3	7.0	6.7	6.4	6.2	6.0	5.8	5.6	5.4	5.3
	350			16.6	14.5	12.9	11.7	10.7	9.9	9.2	8.7	8.2	7.8	7.4	7.1	6.8	6.5	6.3	6.1	5.9	5.7	5.6
	375			17.7	15.4	13.7	12.4	11.4	10.5	9.8	9.2	8.7	8.2	7.8	7.5	7.1	6.9	6.6	6.4	6.2	6.0	5.8
	400				16.4	14.6	13.2	12.0	11.1	10.3	9.7	9.1	8.6	8.2	7.8	7.5	7.2	7.0	6.7	6.5	6.3	6.1

Note:

All values derived from a study performed by Dr. John Porcari, University of Wisconsin - La Crosse, La Crosse WI 54601, 2008-09.

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NuStep® T5/T5XR Recumbent Cross Trainer

Predicted Caloric Expenditure per Minute

Predicted caloric expenditure equation as a function of power and weight

Weight in kilograms → Kcal/min = (METs*(wt*3.5)/1000)*5

Weight in pounds → Kcal/min = (METs*((wt/2.204)*3.5)/1000)*5

		User weight																				
		100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600
		45	57	68	79	91	102	113	125	136	147	159	170	181	193	204	215	227	238	249	261	272
Metabolic Equivalents (METs)	1	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8
	2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	6.4	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5
	3	2.4	3.0	3.6	4.2	4.8	5.4	6.0	6.5	7.1	7.7	8.3	8.9	9.5	10.1	10.7	11.3	11.9	12.5	13.1	13.7	14.3
	4	3.2	4.0	4.8	5.6	6.4	7.1	7.9	8.7	9.5	10.3	11.1	11.9	12.7	13.5	14.3	15.1	15.9	16.7	17.5	18.3	19.1
	5	4.0	5.0	6.0	6.9	7.9	8.9	9.9	10.9	11.9	12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.8	20.8	21.8	22.8	23.8
	6	4.8	6.0	7.1	8.3	9.5	10.7	11.9	13.1	14.3	15.5	16.7	17.9	19.1	20.2	21.4	22.6	23.8	25.0	26.2	27.4	28.6
	7	5.6	6.9	8.3	9.7	11.1	12.5	13.9	15.3	16.7	18.1	19.4	20.8	22.2	23.6	25.0	26.4	27.8	29.2	30.6	32.0	33.3
	8	6.4	7.9	9.5	11.1	12.7	14.3	15.9	17.5	19.1	20.6	22.2	23.8	25.4	27.0	28.6	30.2	31.8	33.3	34.9	36.5	38.1
	9	7.1	8.9	10.7	12.5	14.3	16.1	17.9	19.6	21.4	23.2	25.0	26.8	28.6	30.4	32.1	33.9	35.7	37.5	39.3	41.1	42.9
	10	7.9	9.9	11.9	13.9	15.9	17.9	19.8	21.8	23.8	25.8	27.8	29.8	31.8	33.7	35.7	37.7	39.7	41.7	43.7	45.6	47.6
	11	8.7	10.9	13.1	15.3	17.5	19.6	21.8	24.0	26.2	28.4	30.6	32.7	34.9	37.1	39.3	41.5	43.7	45.8	48.0	50.2	52.4
	12	9.5	11.9	14.3	16.7	19.1	21.4	23.8	26.2	28.6	31.0	33.3	35.7	38.1	40.5	42.9	45.2	47.6	50.0	52.4	54.8	57.2
	13	10.3	12.9	15.5	18.1	20.6	23.2	25.8	28.4	31.0	33.5	36.1	38.7	41.3	43.9	46.4	49.0	51.6	54.2	56.8	59.3	61.9
	14	11.1	13.9	16.7	19.4	22.2	25.0	27.8	30.6	33.3	36.1	38.9	41.7	44.5	47.2	50.0	52.8	55.6	58.3	61.1	63.9	66.7
	15	11.9	14.9	17.9	20.8	23.8	26.8	29.8	32.7	35.7	38.7	41.7	44.7	47.6	50.6	53.6	56.6	59.5	62.5	65.5	68.5	71.4
	16	12.7	15.9	19.1	22.2	25.4	28.6	31.8	34.9	38.1	41.3	44.5	47.6	50.8	54.0	57.2	60.3	63.5	66.7	69.9	73.0	76.2
	17	13.5	16.9	20.2	23.6	27.0	30.4	33.7	37.1	40.5	43.9	47.2	50.6	54.0	57.4	60.7	64.1	67.5	70.8	74.2	77.6	81.0
	18	14.3	17.9	21.4	25.0	28.6	32.1	35.7	39.3	42.9	46.4	50.0	53.6	57.2	60.7	64.3	67.9	71.4	75.0	78.6	82.2	85.7

Note:

All values derived from a study performed by Dr. John Porcari, University of Wisconsin - La Crosse, La Crosse WI 54601, 2008-09.

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NuStep® T5/T5^{XR} Recumbent Cross Trainer

Estimated Power (Watts) at Various Step Rates

		T5, T5 ^{XR} Load Level														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Steps Per Minute (SPM)	15	1	1	1	1	1	1	2	2	2	3	3	3	3	3	3
	30	1	2	3	3	4	5	7	8	9	10	11	12	12	12	13
	40	3	3	5	6	8	10	12	14	16	18	20	21	22	23	24
	50	5	6	8	10	13	15	19	23	26	29	32	34	35	37	39
	60	8	9	12	15	18	23	28	33	37	42	46	49	52	55	58
	70	11	12	16	21	25	31	38	45	51	57	63	67	72	76	80
	80	15	17	22	28	34	41	50	59	67	75	82	89	95	101	107
	90	20	22	29	36	43	53	64	75	84	95	104	113	122	130	138
	100	26	29	36	45	54	66	79	93	104	117	129	141	152	163	173
	110	33	36	45	55	66	80	96	113	126	142	157	171	186	199	213
	120	40	44	54	66	79	96	115	135	151	169	187	205	223	240	257
	130	48	54	64	78	94	114	135	159	177	199	220	242	264	285	306
	140	58	64	76	92	110	133	158	184	206	231	256	282	309	331	352
	150	68	75	89	106	127	154	182	212	236	265	294	324	352	374	396
	160	80	88	102	122	145	176	207	242	269	301	331	362	391	414	435
	170	92	101	117	139	165	200	235	272	300	333	365	398	427	451	472
180	105	116	133	157	186	225	261	301	329	363	396	430	461	485	505	
190	120	132	149	176	206	247	285	327	356	391	425	461	492	516	537	
200	136	149	166	193	225	268	307	351	380	417	452	488	520	544	565	

Note:

All values were computed from testing at NuStep using a controlled step length with various test subjects. Actual displayed values on the NuStep T5 will differ from those listed in the chart due to variations in the user's step length and workout style.

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