



Industrial ^{Tools}



Quality Control Measurement Systems

*Optimise Tool Performance
Reduce Quality Cost
Full Data Traceability
Integrated Software Solution*

More Than Productivity



Measurement System

The new generation of Delta analyzer is the compact portable solution to monitor all types of production tools in just 500g. Combined with standard Desoutter DRT or DST transducers it's capable of calibrating pulse tools, electric nutrunners or torque wrenches. Divided into three models for Torque measurement only (DELTA 1D), Torque & Angle (Delta 6D) and capable of residual torque check with DWTA wrench (Delta 7D).

Main Features

Display



Large color screen shows clear test results, Torque&Angle traces. Real time statistics, Tools description and Routes.

Connectivity



Ethernet and USB port for Delta QC software communication and RS232 for CVI II and CVI3 calibration or barcode reader.

Transducer



Standard Desoutter connector for digital transducers. Analog CMD and GSE transducer connection through an adapter.

Power



Li-Ion high capacity battery of 16 hours of autonomy or external power supply.



Measurement unit

Delta 1D



Torque measurement ideal for torque wrench or pulse tool test together with DRT or DST transducers. Delta 1D doesn't require any programming, it's ready to test the selected tool showing in real time Mins, Max and Average. Complete results and XLS reports are available to be exported from Delta QC Free version software

Delta 6D



DELTA 6D reads Angle from DRT transducer, ideal to test advanced electric nutrunner T&A strategies. DELTA 6D introduces Tool and PSet and definition with Route management, Statistic (ISO, CNOMO or NF standards), Curve and serial communication to CVI controller or Barcode. SPC analysis, trace overlay and off-line programming are available in combination with Delta QC Licensed version

Delta 7D



DELTA 7D combines all DELTA 6D features with DWTA wrench communication for Residual Torque check available with Torque plus Angle strategy. Thanks to the new joint analysis strategy the Delta 7D in combination with DWTA becomes the perfect measurement instrument to characterise the real joint in the line, a key feature to:

- find real joint yield point
- set the production tightening tool with the correct torque and angle values increasing the quality in the overall production process.

MAIN FUNCTION			
	DELTA 1D	DELTA 6D	DELTA 7D
TRANSDUCER			
Connection to DRT4, DRT5, DST	✓	✓	✓
Connection to DWT, DWTA			✓
Connection to CMD and GSE type	✓	✓	✓
		Through optional analog/digital adapter	
Angle measurement		✓	✓
ON BOARD FUNCTIONALITY			
Wrench Test	✓	✓	✓
Nutrunner Test	✓	✓	✓
Pulse Tool Test	✓	✓	✓
Tools	1	1000	1000
Pset		1000	1000
Integrated Statistic	Min, Max Avg	Cm, Cmk (ISO, NF and CNOMO standards)	Cm, Cmk (ISO, NF and CNOMO standards) + SPC
Quality Strategy			✓
Results	1000	5000	5000
Curve		10	10
CVI autocalibration		✓	✓
External Barcode connectivity		✓	✓

MODEL	PART NO	BATTERY LIFE	CHARGER	DEPTH		WIDTH		HEIGHT		WEIGHT	
		hours	volts	mm	in.	mm	in.	mm	in.	kg	lb
Delta 1D	615 935 101 0	16	110/240 V	45	1,77	95	3,74	192	7,56	0,5	1,10
Delta 6D	615 935 102 0	16	110/240 V	45	1,77	95	3,74	192	7,56	0,5	1,10
Delta 7D	615 935 103 0	16	110/240 V	45	1,77	95	3,74	192	7,56	0,5	1,10
ACCESSORIES INCLUDED		OPTIONAL ACCESSORIES									
PART NO	DESCRIPTION	PART NO	DESCRIPTION	PART NO	DESCRIPTION	PART NO	DESCRIPTION	PART NO	DESCRIPTION		
615 936 142 0	Delta Battery	615 936 141 0	Rubber Protection	615 917 674 0	GSE 2500 Adapter*	615 927 651 0	Delta QC Licensed 1 User				
615 936 143 0	Universal Power Supplier	615 917 671 0	CMD & ST 4000 Adapter	615 917 675 0	GSE 8500T Adapter*	615 927 652 0	Delta QC Licensed 5 User				
		615 917 672 0	CMD 5000 Adapter	615 917 676 0	GSE 8500T/A Adapter*	615 927 653 0	Delta QC Advanced 1 User				
		615 917 670 0	RS232 Adapter	615 936 140 0	Delta Demo Case (Empty)	615 927 654 0	Delta QC Advanced 5 User				

*Check with your local Desoutter representative regarding availability on your market.

Digital Wrench Vision for Torque & Angle

The new digital wrench integrates in a unique device a flexible solution for both production and quality strategy in tightening. DWT provides high accuracy solution for torque controlled joints tightening, while the DWTA introduces a digital angle measurement for very critical applications. DWTA also introduces a quality strategy with angle measurement and traceability for a perfect quality audit.

Non Length Dependent Transducer thanks to double bridge strain gauge. To guarantee a tightening result independent from operator hand position

1% of torque accuracy along a wide range.

Standard interchangeable heads

See page 11 for wrench accessories

USB Port for DELTA QC free software communication for programming 10 predefined PSet or to Export result in XLS report.

Ergonomic keyboard to recall the predefined PSet

Backlight RGB colour display for operator guidance plus acoustic buzzer

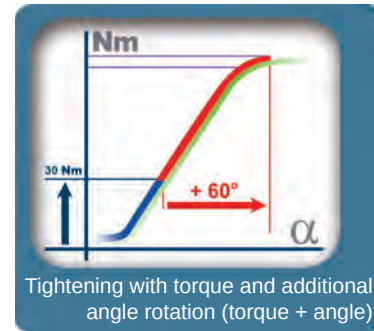
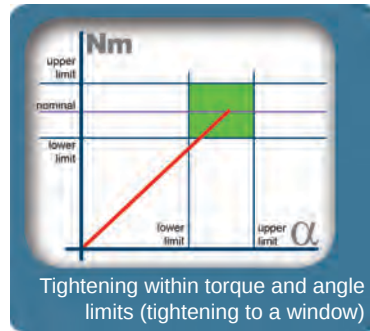
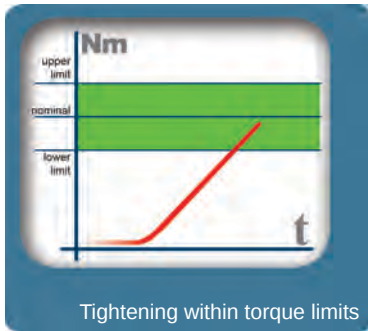
Quick exchange battery pack

3 x Standard or Rechargeable AA Batteries

Optional gyroscope for angle measurement (DWTA VISION)

α

Production Strategies



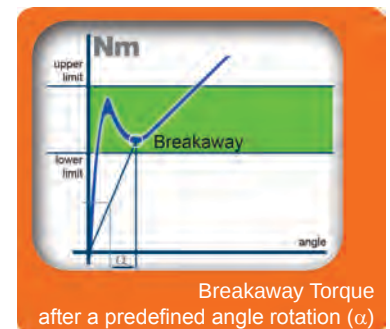
- ✓ Accuracy for critical tightenings
- ✓ Production data traceability
- ✓ Wide torque range to replace click wrenches
- ✓ Repair station tightening



- ✓ Difficult access joints tightening
- ✓ Re-hit detection
- ✓ Low calibration cost
- ✓ Back up tool

Quality Strategies

- ✓ Quality audit checks for already tightened joint
- ✓ Predefined angle rotation for operator independence
- ✓ Export data for quality & statistic analysis
- ✓ Perfect for fast & accurate pulse tools setting



TECHNICAL SPECIFICATION											
		DESCRIPTION									
10 predefined Pset	Pset with T/A limits defined by Delta QC Software	USB Communication	Bi-directional communication to Delta QC Software								
Batch Count	Up to 99	Results	1000								
Production Strategies	Torque/Time, Torque & Angle, Torque + Angle	RGB Display	Red Green or Blue backlight								
Quality Audit Strategy	Peak Torque, Torque plus Angle CW/CCW Tightenings	Buzzer	Extension Torque and Angle bending correction								
Torque Accuracy	1% of torque reading +/- 1 digit	Multi-units	N•m, N•cm, Kg•cm, Kg•m, Oz•in, Lbf•in, Lbf•ft								
Angle Accuracy	1% of angle reading +/- 1 digit	Autoswitch Off									
Battery	3 x AA Standard or Rechargeable	Languages	French, English, Spanish, Italian, Deutsch, Portuguese								
Power Autonomy	up to 4 hours	Software	Free Delta QC software to define Pset and downloads results								
MODEL	PART NO.	RANGE		ANGLE	DRIVE		INCLUDED	LENGTH		WEIGHT	
		Nm	ft. lb		mm	in	RATCHET in	mm	in	kg	lb
DWT Vision 30	615 165 755 0	3 - 30	2.21 - 22.1	no	9 x 12	0.35 x 0.47	3/8	382	15.04	0.800	1.76
DWT Vision 150	615 165 756 0	15 - 150	11.06 - 110.6		14 x 18	0.55 x 0.71	1/2	398	15.67	0.900	1.98
DWT Vision 800	615 165 758 0	80 - 800	59.00 - 590.0		ø28	1.01	1	1358	53.46	5	11.02
DWTA Vision 30	615 165 765 0	3 - 30	2.21 - 22.1	yes	9 x 12	0.35 x 0.47	3/8	382	15.0	0.800	1.76
DWTA Vision 150	615 165 766 0	15 - 150	11.06 - 110.6		14 x 18	0.55 x 0.71	1/2	398	15.67	0.900	1.98
DWTA Vision 800	615 165 768 0	80 - 800	59.00 - 590.0		ø28	1.01	1	1358	53.46	5	11.02

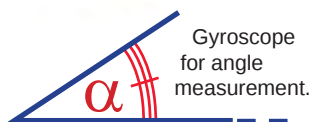
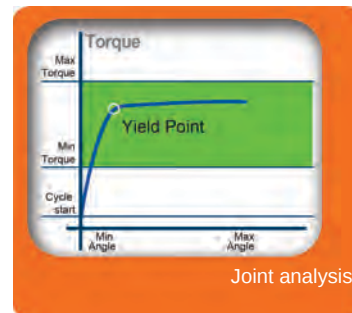
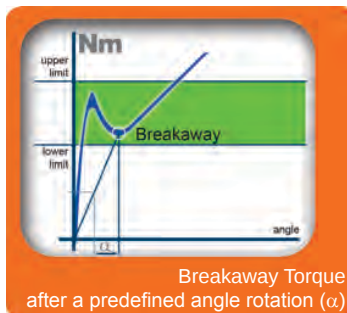
All models are supplied with plastic box including reverseable ratchet and Delta QC Free Version CD-Rom

Digital Wrench for Torque & Angle

Quality Strategies

In combination with Delta 7D, the new torque and angle wrench for:

- ✓ Residual torque check at predefined angle rotation
- ✓ Joint analysis with Yield point detection



Non Length Dependent Transducer thanks to double bridge strain gauge. To guarantee a tightening result independent from operator hand position

1% of torque accuracy along a wide range.

Military connector for standard transducer cable

MODEL	PART NO	RANGE		DRIVE		RATCHET	LENGTH		WEIGHT	
		Nm	ft. lb	mm	in.		mm	in.	kg	lb
DWTA 30 Nm	615 165 760 0	3-30	2.2-22.1	9x12	0.35x0.47	3/8	404.5	15.93	0.800	1.76
DWTA 150 Nm	615 165 761 0	15-150	11.6-110.6	14x18	0.55x0.71	1/2	412.5	16.24	0.900	1.98
DWTA 800 Nm	615 165 763 0	80-800	59.0-590.0	Ø 28	1.01	1	1404	55.28	5	11.02

Digital Torque Tester

- ✓ Alpha D Series is designed to monitor and collect torque check results from screwdrivers, torque wrenches or click wrenches.
- ✓ Ideal to tune the tools thanks to real time statistics on colour display and high capacity torque results storage.
- ✓ Traceability with included software result acquisition with time stamp, including PDF or XLS reports.
- ✓ Three models with embedded transducer to cover torque range from 0,1 to 16 Nm. All models are provided with two included joint simulators to test nutrunner according to different joint stiffness condition.

Main Features



Backlight
RGB color
display
with acoustic
buzzer

TECHNICAL SPECIFICATION	
MODEL	DESCRIPTION
Torque Transducer	Embedded
Torque Accuracy	1% of readings
Tool Testing	Torque Wrench, Nutrunner or Pulse Tools
Statistic	Min, Max, Average, Standard Deviation
Results Storage	1000
Multi-units	N•m, Kg•m, Kg•cm, Oz•in, Lb•in, Lb•ft, N•cm
Display	Red, Green, Blue backlight
Power Supply	External power supply
Languages	French, English, Spanish, Italian, Deutsch, Portuguese
Software	Free Delta QC Software to export by USB result

MODEL	PART NO	POWER CHARGER	TORQUE RANGE		DEPTH		WIDTH		HEIGHT		WEIGHT	
			volts	Nm	in. lb	mm	in.	mm	in.	mm	in.	kg
ALPHA D1	615 935 104 0	110/240 V	0.1 - 1	0.88 - 88.5	106	4.17	180	7.09	70	2.76	0.95	2.1
ALPHA D5	615 935 105 0	110/240 V	0.5 - 5	4.42 - 44.25	106	4.17	180	7.09	70	2.76	0.95	2.1
ALPHA D16	615 935 106 0	110/240 V	1.6 - 16	14.1 - 141.6	106	4.17	180	7.09	70	2.76	0.95	2.1

All models are supplied with external power supply, suitable hard and soft joint simulators and Delta QC Software CD-ROM

Digital Transducer & Accessories

All Desoutter digital transducer benefit from of:

- ✓ Automatic recognition thanks to internal memory chip storing main data values eliminating any setting mistakes and time losses.
- ✓ Communication to data analyzer not sensitive to the cable length.
- ✓ High reliability due to immunity from external noise thanks to digital communication.
- ✓ Long life durability thanks to industrial design from transducer to housing.

Torque Rotary Transducer

The Rotary Torque Transducer DRT4 is designed to measure the torque output of any non-impact assembly tool. The transducer is suitable for use with impulse type assembly tools brushes with minimal maintenance requirements.



Features:

- ✓ Torque range from 0.15 to 5000 Nm (0.11 to 3685 ft.lb).
- ✓ Strain gauges transducer
 - sensitivity 2mV/V.
 - accuracy $\pm 0.35\%$ full scale.
- ✓ Built-in smart chip memory with:

Calibration features:
type of transducer – sensitivity
nominal load – serial number.

TORQUE TRANSDUCERS DRT4

MODEL	PART NO	TORQUE RANGE		OUTPUT
		Nm	ft.lb	
DRT 4 H 2	615 165 209 0	0.15-2	0.11-1.5	Hex 1/4"
DRT 4 H 5	615 165 210 0	0.3-5	0.22-3.7	Hex 1/4"
DRT 4 H 20	615 165 211 0	1.5-20	1.11-14.7	Hex 1/4"
DRT 4 Sq 20	615 165 212 0	1.5-20	1.11-14.7	Sq 1/4"
DRT 4 Sq 25	615 165 213 0	1.8-25	1.33-18.4	Sq 3/8"
DRT 4 Sq 75	615 165 214 0	5.0-75	3.69-55.3	Sq 3/8"
DRT 4 Sq 180	615 165 215 0	12.0-180	8.85-132	Sq 1/2"
DRT 4 Sq 500	615 165 216 0	35.0-500	25.8-368	Sq 3/4"
DRT 4 Sq 1400	615 165 217 0	95.0-1400	70.0-1032	Sq 1"
DRT 4 Sq 3000	615 165 536 0	200-3000	147-2211	Sq 1-1/2"
DRT 4 Sq 5000	615 165 540 0	350-5000	258-3685	Sq 1-1/2"

Torque & Angle Rotary Transducer

An alternative version DRT 5 is available with an angle measurement encoder which allows with a DELTA 6D or DELTA 7D, the measurement of the angle of rotation in addition to torque.

Features:

- ✓ Torque range from 0.15 to 1400 Nm (0.11 to 1032 ft.lb).
- ✓ Angle counting system 0.5° resolution
- ✓ Strain gauges transducer
 - sensitivity 2mV/V.
 - accuracy +/-0.35% full scale.
- ✓ Built-in smart chip memory with:
 - Calibration features:
 - type of transducer – sensitivity*
 - nominal load – serial number.*

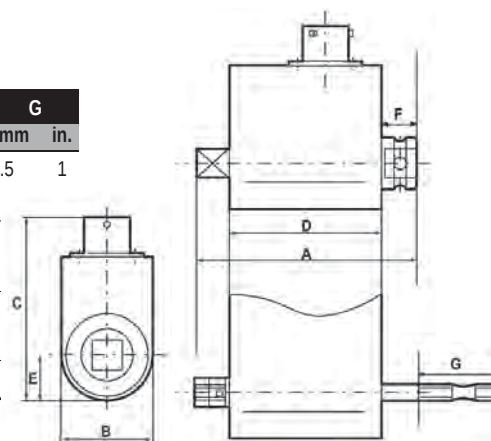


TORQUE & ANGLE TRANSDUCERS DRT5

MODEL	PART NO	TORQUE RANGE		OUTPUT
		Nm	ft.lb	
DRT 5 H 2	615 165 218 0	0.15-2	0.11-1.5	Hex 1/4"
DRT 5 H 5	615 165 219 0	0.3-5	0.22-3.7	Hex 1/4"
DRT 5 H 20	615 165 220 0	1.5-20	1.11-14.7	Hex 1/4"
DRT 5 Sq 20	615 165 221 0	1.5-20	1.11-14.7	Sq 1/4"
DRT 5 Sq 25	615 165 222 0	1.8-25	1.33-18.4	Sq 3/8"
DRT 5 Sq 75	615 165 223 0	5.0-75	3.69-55.3	Sq 3/8"
DRT 5 Sq 180	615 165 224 0	12.0-180	8.85-132	Sq 1/2"
DRT 5 Sq 500	615 165 225 0	35.0-500	25.8-368	Sq 3/4"
DRT 5 Sq 1400	615 165 226 0	95.0-1400	70.0-1032	Sq 1"

- ✓ Same size for torque or torque & angle transducer

OUTPUT	A		B		C		E		H		F		G	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
Hex 1/4"	116.0	4.56	31.0	1.22	71.9	2.83	56.0	2.20	15.5	0.61	39.0	1.53	25.5	1
Sq 1/4"	71.5	2.81	31.0	1.22	71.9	2.83	56.0	2.20	15.5	0.61	6.0	0.24		
Sq 3/8"	77.0	3.03	31.0	1.22	71.9	2.83	56.0	2.20	15.5	0.61	8.0	0.31		
Sq 1/2"	87.0	3.42	42.0	1.65	82.9	3.26	58.0	2.28	21.0	0.83	12.0	0.47		
Sq 3/4"	106.0	4.17	52.0	2.05	92.9	3.66	66.0	2.60	26.0	1.02	21.0	0.83		
Sq 1"	125.0	4.92	65.0	2.56	104.9	4.13	73.0	2.87	32.5	1.28	29.0	1.14		
Sq 1 1/2"	165.0	6.50	106	4.17	148.5	5.85	88.0	3.46	53.0	2.09	35.2	1.39		

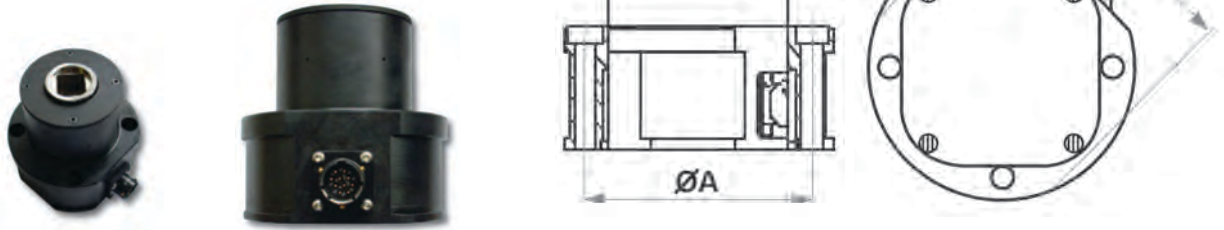


Transducer Cables

CABLE TYPE	DATA COLLECTOR	FOR TRANSDUCER	LENGTH	PART
DESCRIPTION	TYPE			NUMBER
Digital 10 pins	All types of Delta	All digital transducers	2m (78.7") long	615 917 430 0
Digital 10 pins	All types of Delta	All digital transducers	5m (196.8") long	615 917 433 0
Digital 10 pins	All types of Delta	All digital transducers	2m (78.7") long, spiral	615 917 432 0

Static Transducer

Designed for testing wrenches, click wrenches or for tightening tools where rotary action is not desired during measurement. In the case of a Shut-Off tool test a joint simulator as an accessory is required.



MODEL	PART NO	TORQUE RANGE		SQUARE DRIVE	DIMENSIONS				WEIGHT	
		Nm	ft. lb		Ø A		B		kg	lb.
DST 0,5 Nm - 13	615 165 537 0	0.05-0.5	0.04-0.4	1/2	81	3.19	91	3.58	2.2	5.1
DST 2 Nm - 13	615 165 532 0	0.2-2	0.15-1.5	1/2	81	3.19	91	3.58	2.2	5.1
DST 5 Nm - 13	615 165 533 0	0.5-5	0.37-3.7	1/2	81	3.19	91	3.58	2.3	5.1
DST 10 Nm - 20	615 165 534 0	1-10	0.74-7.4	3/4	86	3.38	93	3.66	3.1	6.8
DST 30 Nm - 20	615 165 535 0	3-30	2.21-22	3/4	89	3.50	96	3.78	3.4	7.5
DST 80 Nm - 25	615 165 538 0	8-80	5.89-59	1	108	4.25	116	4.57	5.8	12.8
DST 200 Nm - 25	615 165 539 0	20-200	14.7-147	1	108	4.25	116	4.57	5.8	12.8
DST 500 Nm - 32	615 165 541 0	50-500	36.8-368	1-1/4	133	5.24	144	5.67	11.8	26.0
DST 1000 Nm - 32	615 165 542 0	100-1000	73.7-737	1-1/4	133	5.24	144	5.67	11.9	26.2
DST 2000 Nm - 32	615 165 543 0	200-2000	147.4-1474	1-1/4	133	5.24	144	5.67	12.0	26.4

Joint simulators

A wide range of mechanical joint simulators are available to reproduce the joint behavior; installing the joint simulator on a transducer allows you to test a tool in the same real working conditions. Each joint simulator reproduces a specific stiffness as described in its torque/angle characteristics. For each capacity, there are two versions: one reproducing a softer joint and one reproducing a harder joint.



MODEL	PART NO	TORQUE MAX		COLOUR		SQUARE DRIVE		WEIGHT	
		Nm	lb	INSIDE	OUTSIDE	in.	in.	kg	lb.
DJS Soft - 2	615 165 529 0	2	1.5	Yellow	Yellow	1/2	Hex 1/4	0.12	0.26
DJS Hard - 2	615 165 530 0	2	1.5	Yellow	Black	1/2	Hex 1/4	0.12	0.26
DJS Soft - 5	615 165 531 0	5	3.7	Green	Yellow	1/2	Hex 1/4	0.12	0.26
DJS Hard - 5	615 165 571 0	5	3.7	Green	Black	1/2	Hex 1/4	0.12	0.26
DJS Soft - 10	615 165 574 0	10	7.4	Red	Yellow	3/4	1/4	0.23	0.51
DJS Hard - 10	615 165 575 0	10	7.4	Red	Black	3/4	3/8	0.41	0.90
DJS Soft - 30	615 165 577 0	30	22	Blue	Yellow	3/4	3/8	0.41	0.90
DJS Hard - 30	615 165 579 0	30	22	Blue	Black	3/4	3/8	0.41	0.90
DJS Soft - 80	615 165 584 0	80	59	Purple	Yellow	1	1/2	0.75	1.65
DJS Hard - 80	615 165 587 0	80	59	Purple	Black	1	1/2	0.75	1.65
DJS Soft - 200	615 165 588 0	200	147	Grey	Yellow	1	1/2	0.75	1.65
DJS Hard - 200	615 165 589 0	200	147	Grey	Black	1	1/2	0.75	1.65
DJS Soft - 500	615 165 590 0	500	369	Black	Yellow	1-1/4	1/2	1.75	3.86
DJS Hard - 500	615 165 591 0	500	369	Black	Black	1-1/4	3/4	3.06	6.74
DJS 1000	615 165 572 0	1000	737			1-1/4	1	3.20	7.05

DSA - DELTA STATIC TRANSDUCERS ACCESSORIES					
MODEL	PART NO.	MODEL	PART NO.	MODEL	PART NO.
Adaptor SQ 3/4" M - 1/4" F	615 397 205 0	Adaptor SQ 1-1/4" M - 1/2" F	615 397 208 0	Female 1/4" - Female 1/4"	615 397 210 0
Adaptor SQ 3/4" M - 3/8" F	615 397 206 0	Adaptor SQ 1-1/4" M - 3/4" F	615 397 209 0	Female 3/8" - Female 3/8"	615 397 211 0
Adaptor SQ 1" M - 1/2" F	615 397 207 0			Female 1/2" - Female 1/2"	615 165 573 0
				Female 3/4" - Female 3/4"	615 165 576 0

Wrench Accesories



A



B

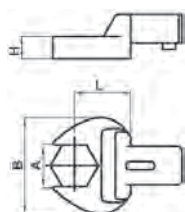


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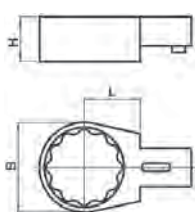


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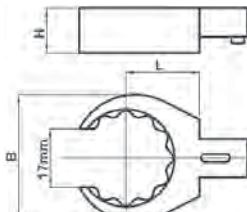
PIC REF	MODEL	PART NO	DRIVE		DIMENSIONS								WEIGHT	
			mm	in.	A		B		H		L		kg	lb
Open End														
A	Open End 13mm	615 397 061 0	9x12	0.03x0.47	13	0.51	30	1.18	7	0.28	17.5	0.69	0.048	0.106
A	Open End 17mm	615 397 065 0	9x12	0.03x0.47	17	0.67	38	1.50	8.5	0.33	17.5	0.69	0.060	0.132
A	Open End 22mm	615 397 139 0	14x18	0.55x0.71	22	0.87	50	1.97	11	0.43	25	0.98	0.165	0.363
A	Open End 24mm	615 397 140 0	14x18	0.55x0.71	24	0.94	53	2.09	12	0.47	25	0.98	0.167	0.368
Ring End														
B	Ring End 17mm	615 397 087 0	9x12	0.03x0.47	17	0.67	27.2	1.07	13	0.51	17.5	0.69	0.059	0.130
B	Ring End 22mm	615 397 091 0	9x12	0.03x0.47	22	0.87	34.5	1.36	15	0.59	17.5	0.69	0.074	0.163
B	Ring End 22mm	615 397 181 0	14x26	0.55x1.02	22	0.87	34.5	1.36	15	0.59	25	0.98	0.145	0.319
B	Ring End 24mm	615 397 182 0	14x267	0.55x1.06	24	0.94	37.5	1.48	15	0.59	25	0.98	0.153	0.337
Flared End														
C	Flared End 22mm	615 397 113 0	9x12	0.03x0.47	22	0.87	39	1.54	15	0.59	19	0.75	0.092	0.202
Reversible Ratchet														
D	Reversible Ratchet 1/4"	615 397 125 0	9x12	0.03x0.47	1/4		22	0.87	14.5	0.57	17.5	0.69	0.062	0.137
D	Reversible Ratchet 3/8"	615 397 126 0	9x12	0.03x0.47	3/8		22	0.87	14.5	0.57	17.5	0.69	0.062	0.137
D	Reversible Ratchet 1/2"	615 397 127 0	9x12	0.03x0.47	1/2		22	0.87	14.5	0.57	17.5	0.69	0.062	0.137
D	Reversible Ratchet 1/2"	615 397 200 0	14x18	0.55x0.71	1/2		50	1.97	30.7	1.21	25	0.98	0.467	1.022
D	Reversible Ratchet 3/4"	615 397 201 0	14x18	0.55x0.71	3/4		50	1.97	30.7	1.21	25	0.98	0.467	1.022
D	Reversible Ratchet 3/4"	615 397 204 0	Ø 28		3/4		50	1.97	30.7	1.21	25	0.98	0.467	1.022



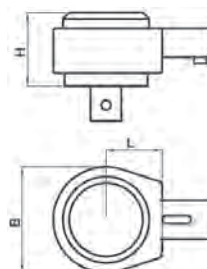
A



B



C



D

Embedded transducers

Assembly tools calibration process requires a flexible and versatile solution, high quality performance even in production lines. Desoutter Tools is proud to present the Delta Cart, an ergonomic and attractive solution to improve quality in assembly processes.

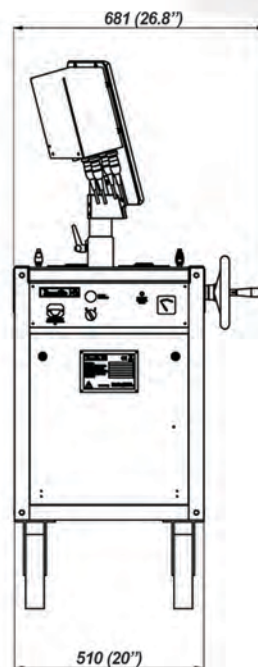
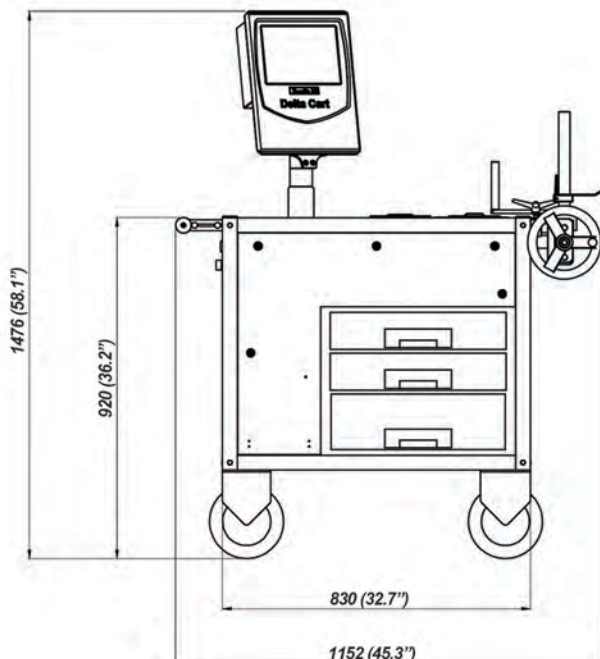
Delta Cart offers a wide torque range since it can be configured up to **4 static transducers** to cover from **0.2 Nm to 1 000 Nm (0.15 to 738 ft.lb)** in a very compact dimensions (510mm width), making the Delta Cart the ideal solution for tool testing in assembly production lines.



Embedded PC equipped with **wide 10.4" colour touch screen** lets operators to start tool testing in a few seconds and few steps.



Delta Cart includes all adapters, reaction bars and suitable joint simulators. **Optional ISO RIG** for torque wrench to eliminate operator influence during calibration, reducing efforts for high torque range.



Production Tool testing

The Delta Cart is able to follow your tools during the complete life span: by performing capacity test (Cm/Cmk) before tool is introduced into production, or monitoring tool performance during production assembly process by performing Statistic Process Control (SPC) test.



Electric and Pneumatic Nutrunner



Shut off and non shut off Pulse Tool



Torque wrench



Click wrench

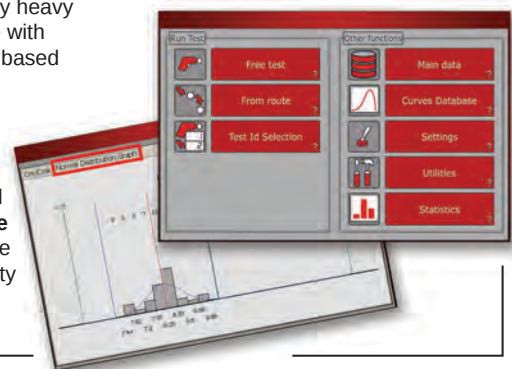
Embedded Software



High quality
real time traces with
zoom feature for analysis

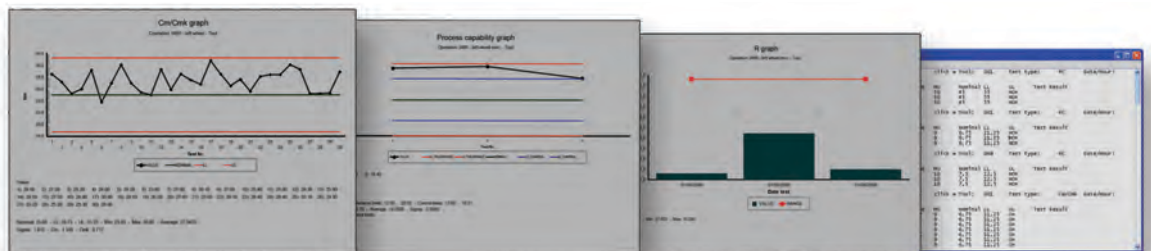
Delta Cart combines high quality heavy duty design on mechanical side with intuitive and user friendly icons based software.

Local Tool and
Result database
to guarantee
traceability



Certificate Export

Statistic Result export to ESB
in Excel format or PDF report.



SOFTWARE FEATURES	
ITEM	DESCRIPTION
Torque Wrench, Electric or Pneumatic Nutrunner Test, Pulse Test	Local Test Database up to 3000 Tests - Setting: Nominal Min Max Torque, unit of measure, Test Id, Test Description, Transducer number, Timeout setting
Cm/Cmk - ISO 3534	Cm/Cmk, min, max, average, sigma
Statistic Control - ISO 8258	X/R Charts for trend control
Print	Report Printing through external laptop and included printing software
Export	Certificate export through USB Key
Curve	UP to 10.000 Curves
Barcode	External RS232 for V.I.N. operator code
Configurable for each test	N•m - gf•cm - Kg•cm - kgf•m - ozf•in - lbf•ft
Password Management	Operator - Supervisor - SuperUser
Languages	English, French, Italian, German, Spanish, Polish, Swedish

Delta QC Software

VERSION	
PART NO	MODEL
615 927 651 0	Delta QC Licensed 1 User
615 927 652 0	Delta QC Licensed 5 User
615 927 653 0	Delta QC Advanced 1 User
615 927 654 0	Delta QC Advanced 5 User

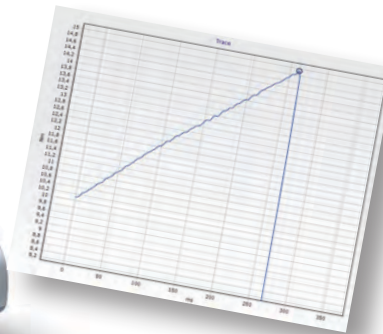
The new Delta QC software is the common software platform for all Delta QC measurement equipment. Included features are programming, results and trace viewer ensuring production data traceability. Statistic machine capability tool or SPC are also ensured thanks to local database available in the Advanced version.

Licensed

PSet, Tool and Route
online or offline
programming



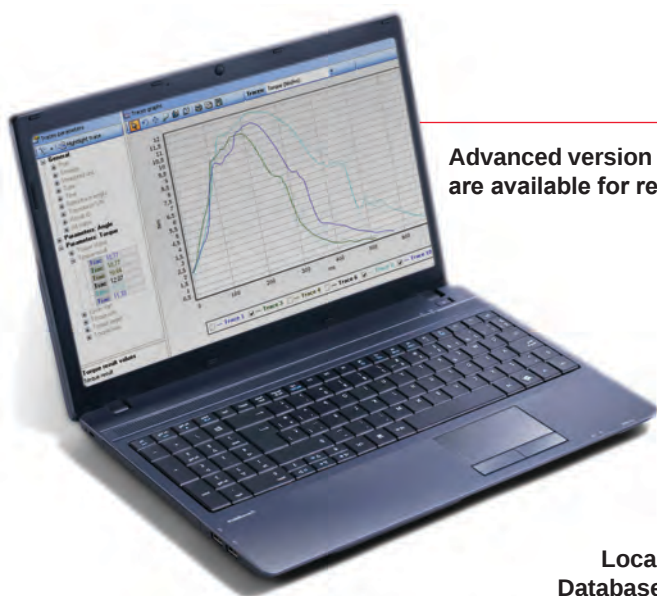
Result and Trace Viewer,
Excel EXPORT
and PRINTING



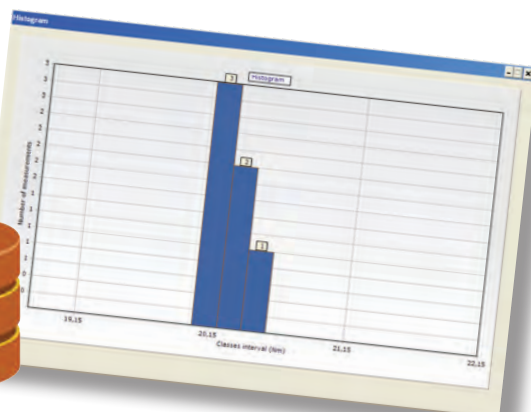
	MAIN FUNCTION		
	FREE	LICENSED	ADVANCED
Delta D			
Pset programming	✓	✓	✓
Tool Definition	✓	✓	✓
Route Definition	✓	✓	✓
Transducer Definition	✓	✓	✓
Pset Database	✓	✓	✓
Tool Database	✓	✓	✓
Route Database	✓	✓	✓
Statistic	✓	✓ (online only)	✓
Result viewer	✓	✓	✓
Result excel export		✓	✓
Curve viewer		✓	✓
Curve excel, JPEG export		✓	✓
Curve comparison		✓	✓
RESULT Database			✓
Curve Database			✓
Offline statistic			✓

Advanced

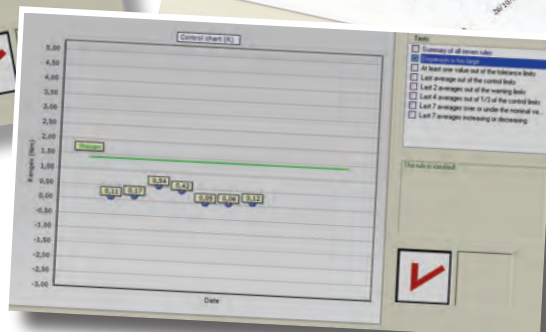
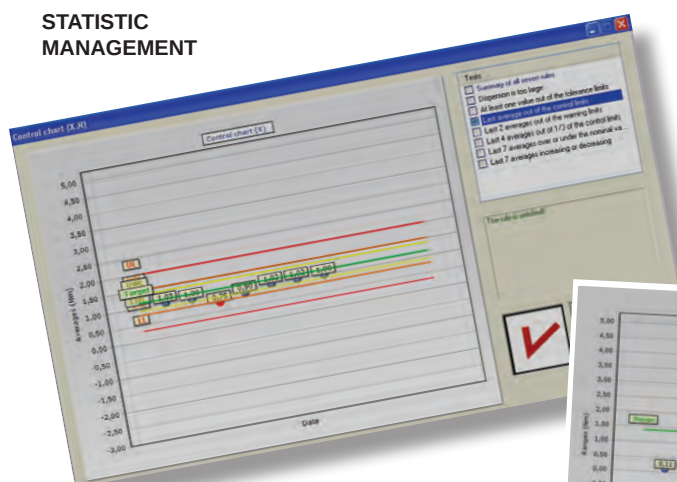
Advanced version provides a local result database. All results, traces and statistics are available for review, export and reporting in both on line and off line mode.



Local
Database



STATISTIC MANAGEMENT



	MAIN FUNCTION		
	FREE	LICENSED	ADVANCED
DWTA Vision			
Pset programming	✓	✓	✓
Result viewer	✓	✓	✓
Result excel export	✓	✓	✓
Result Database			✓

DWT Vision and Alpha D product range are supplied with the Delta QC software. Without any registration the Delta QC is able to program DWT Vision and Alpha D, download results, export to excel and print.

Free Version

	MAIN FUNCTION		
	FREE	LICENSED	ADVANCED
Alpha D			
Result viewer	✓	✓	✓
Result excel export	✓	✓	✓
Curve Viewer	✓	✓	✓

More Than Productivity