

# YOKOTA IMPULSE WRENCHES

HIGH SPEED PRODUCTION  
HIGH QUALITY TIGHTENING

[www.rami-yokota.com](http://www.rami-yokota.com)



Impulse wrenches

Impulse wrenches with  
and without shut-off

Cordless impulse  
wrenches

Poka Yoke<sup>+</sup>

System wrenches

Electric system wrenches

Battery system wrenches

Sleeve Drive sockets



**YOKOTA**

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# ASSEMBLY TOOLS

## Guideline values for tightening torques

VDI 2230*		STEEL				STAINLESS		
Strength classes		5.8	8.8	10,9	12,9	50	70	80
Bolt	Dimension of bolt head mm	Torque Nm						
M1.6	-	0,11	0,17	0,24	0,29	0,10	0,20	-
M2	-	0,22	0,35	0,49	0,58	0,25	0,30	-
M2.2	-	0,29	0,46	0,64	0,77	-	-	-
M2.5	-	0,44	0,70	0,98	1,20	0,45	0,60	-
M3	-	0,77	1,20	1,70	2,10	1,00	1,10	-
M3.5	-	1,20	1,90	2,70	3,30	-	-	-
M4	7	1,9	2,9	4,1	4,9	0,94	2,01	2,68
M5	9	3,7	6	8,5	10	1,86	4,00	5,33
M6	10	6,4	10	14	17	3,23	6,92	9,23
M8	13	16	25	35	41	7,9	16,9	22,5
M10	17/16	31	49	69	83	15,6	33,3	44,5
M12	19/18	54	86	120	145	26,9	57,7	76,9
M14	22/21	86	135	190	230	43,4	93,0	124,1
M16	24	130	210	295	355	66,4	142,3	189,8
M18	27	180	290	405	485	92,8	198	265
M20	30	255	410	580	690	130	278	371
M22	32	345	550	780	930	174	374	499
M24	36	440	710	1000	1200	224	480	640
M27	41	650	1050	1500	1800	331	708	-
M30	46	880	1450	2000	2400	450	964	-
M33	50	1200	1900	2700	3250	609	-	-
M36	55	1550	2450	3450	4150	782	-	-

\* These torque values are only guide lines and are calculated with friction factor 0,125.

# JOINT QUALITY

## Advantages of the YOKOTA Impulse Wrenches:

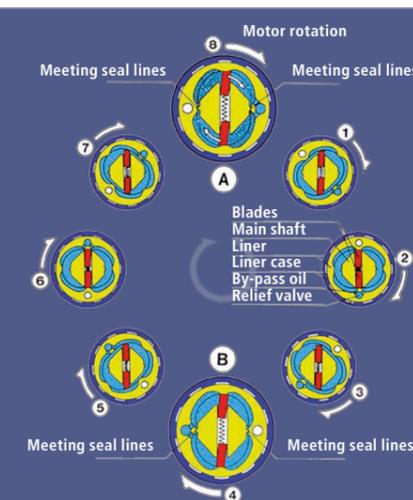


## YOKOTA

YOKOTA Industrial Co. Ltd. (Japan) is making great effort to provide high quality and performance airtools for all industries. The modern technology is resulting in a high quality production system, based on 70 years of experience. The company is internationally orientated and active in global sales. The production of the YOKOTA airtools meet the demands of the 21 century. All developments are based on original and flexible ideas. The YOKOTA strategy is that development with team spirit, flexible ideas and young power will bring the best solutions. With all this research and developments YOKOTA is contributing to a better environment for the operator.

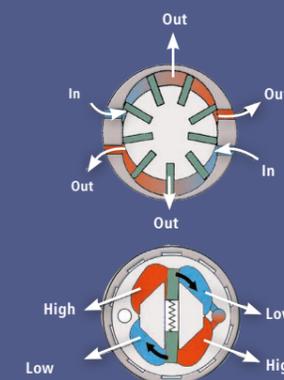
## Faster

YOKOTA impulse wrenches are widely used for tightening jobs in the assembly industry, where accurate torque tolerances are necessary. Impulse tools are light, powerful, small and very importantly, have no kick-back. The YOKOTA range of impulse tools is increasing fast, starting at 6 Nm to tighten small joints, and goes up to 600 Nm. Evaluation of tightening processes in car assembly shows that tightening joints uses 10% of the total assembly time. Working with faster tools therefore can speed up assembly lines substantially.



## High accuracy

Impulse wrenches have a twin blade impulse mechanism for sealing oil which gives a high repeatability. The mechanism is designed so that the liner, rotated by the air motor gives an equal torque on both blades and instant rotation torque on the mainshaft (see figure below). A by-pass is designed in the liner so that the oil can escape from the area of high pressure to the area of low pressure at the moment of creating a pulse and the amount of oil flow can be adjusted by the relief valve to control the torque output. Depending on model and setting, the impulse wrenches give 10 - 40 impulses per second. The power is transmitted by oil pressure and therefore the impulse wrenches have a very low noise- and vibration level.



## Double chamber air motor

The YOKOTA Y-, YLa, YLT, YED- and TKa-series impulse wrenches with double chamber air motor reach the required torque very quickly. The tools have a high number of impulses per second, and therefore very accurate torques can be realized, resulting in increased production speed.

Patented twin blade impulse unit. YOKOTA's unique impulse mechanism reduces noise and vibration! **High impulse frequency.**



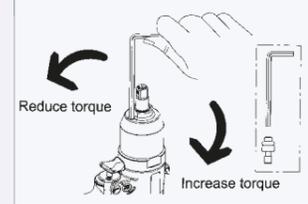
## Ecology

The tools are innovatively designed, paying the highest attention to the environment and its safeguard. All the components are easy to dispose of, because they are built with recyclable materials. Therefore they do not present any danger in terms of environmental pollution. Models with automatic air shut-off reduce the cycle time and therefore the compressed air consumption.

# IMPULSE WRENCHES HOW TO USE

## Specified torque range

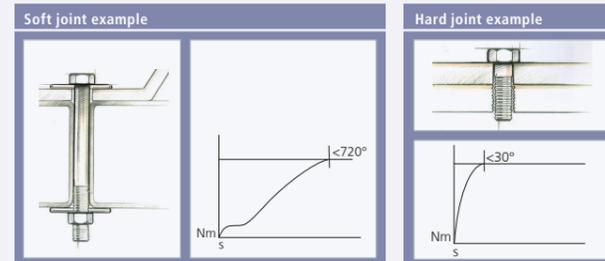
Adjustment of torque level of the tool.



The specified torque range is measured in the laboratory under standard conditions. Therefore these torque figures are only to be used as a guideline.

The actual torque range depends on a variety of working conditions, eg: air pressure, joint hardness, used accessory.

The torque ranges are specified at a dynamic air pressure of 0.6 MPa, lower air pressure will result in lower torque. Please take note that these impulse wrenches are developed for a dynamic air pressure of 0.63 MPa maximum.



## Shut-off impulse wrenches selection:

- Hard joint: torque levels up to 95% of the specified torque range
- Soft joint: torque levels up to 85% of the specified torque range

## Non shut-off impulse wrenches selection:

- Hard joint: torque levels up to 100% of the specified torque range
- Soft joint: torque levels up to 90% of the specified torque range

## Accessories

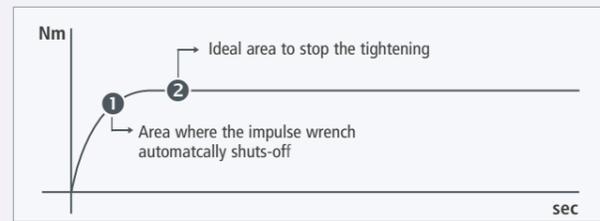
The size and shape of impact sockets influence the torque result. Extension bars, depending on the length, can lower the torque range with 5-30% Inner torx and inner hexagon can lower the torque range with 5-20%

## For the best result of the impulse wrench, use:

- Constant stabilized air pressure
- Sleeve drive sockets, impact quality (see pages 24-31)
- Impact quality accessories with the correct dimensions
- Accessories in good condition
- Correct hose inner diameter and length
- Lubricated air

We advise to use the impulse wrench up to 80% of it's capacity for the highest productivity, accuracy and durability.

# IMPULSE WRENCHES WHAT TO CHOOSE?



## Impulse wrenches without shut-off ②

Impulse wrenches achieve the highest quality joint if the tightening is finished in this area (horizontal part of the torque curve)

- Highest clampforce with smallest tolerances
- Smallest torque tolerances

## Impulse Wrenches with mechanical shut-off ①

CHARACTERISTICS:

- Shorter operating time
- Operator knows when the tightening is finished
- Highest clampforce with smallest tolerances
- Smallest torque tolerances

## Impulse Wrenches with integrated torque transducer ②

CHARACTERISTICS:

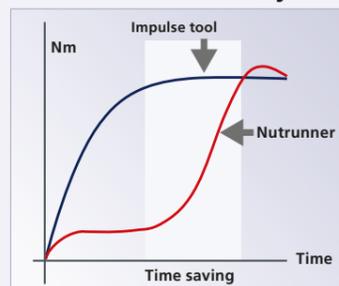
- Highest clamp force with smallest tolerances
- Smallest torque tolerances
- Shortest optimum operating time
- Operator knows when the tightening is finished
- Operator is informed about OK-NOK of the tightening
- OK joints are counted, no missed tightenings
- Actual tightening torque is measured
- Full documentation
- Zero fault production

## Impulse Wrench with Poka Yoke+ system ②

Impulse wrench with controlled shut-off

- Highest clamp force with smallest tolerances
- Smallest torque tolerances
- Shortest optimum operating time
- Operator knows when the tightening is finished
- Operator is informed about OK-NOK of the tightening
- OK joints are counted, no missed tightenings

## Save time - save money



Because of the principal of using hydraulics to reach a certain torque, impulse tools can run at a high rpm. The required torque is reached in a split second. All YOKOTA

impulse wrenches can be used for hard and soft joints, and give a high accuracy / repeatability and a low relaxation.

# IMPULSE WRENCHES BATTERY IMPULSE WRENCHES

## YBX-600TE/600TA YBX-800TE/800TA Electronic controlled shut-off



Typ	Drive	Bolt capacity mm	RPM	Torque Nm*	Weight kg	Dimensions		Vibration m/s <sup>2</sup>	Noise levels dB(A)
						A mm	B mm		
YBX-600TE	3/8" Sq.	M6	2.000	8 - 20	1,50	170	37	< 2,5	77
YBX-600TA	1/4" Hex	M6	2.000	7 - 18	1,50	170	37	< 2,5	77
YBX-800TE	3/8" Sq.	M8	2.000	18 - 35	1,55	174	37	< 2,5	78
YBX-800TA	1/4" Hex	M8	2.000	16 - 31	1,55	174	37	< 2,5	78

FEATURES YBX-600T/800T

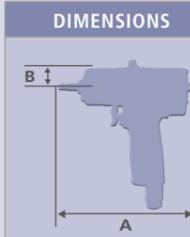
- Very high accuracy
- Electronically controlled shut-off OK/NOK LED on display
- Counting function
- No kick-back
- Maintenance free motor (brushless)
- Lithium-ion battery, sliding model
- Perfectly balanced
- Compact lightweight
- Low vibration and noise levels
- Controller integrated
- Pincode (password protection)

ELECTRONICALLY CONTROLLED



The YBX-600T and YBX-800T are Electronically Controlled battery impulse wrenches with integrated angle encoder for highly accurate torque tolerances. The shut-off is calculated over several impulses. The controller is integrated and enables counting, Poka Yoke.

## YBX-50A/YBX-50E Non shut-off



Typ	Drive	Bolt capacity mm	RPM	Torque Nm*	Weight kg	Dimensions		Vibration m/s <sup>2</sup>	Noise levels dB(A)
						A mm	B mm		
YBX-50A	1/4" Hex	5 - 8	2.200	7 - 22	1,7	194	26	3	79
YBX-50E	3/8" Sq.	5 - 8	2.200	7 - 22	1,7	194	26	3	79

### \* Torque specifications

All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.

Accessories for impulse wrenches on pages 22 & 23.



# IMPULSE WRENCHES POKA YOKE+ SYSTEM

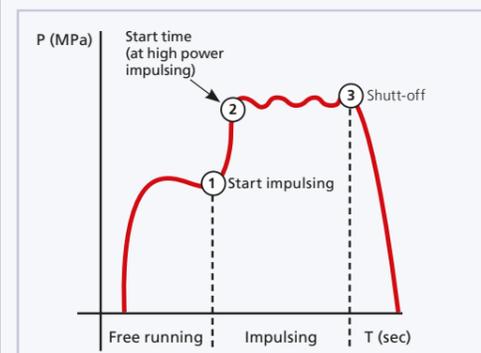


## Poka Yoke+: functioning principle

The system is controlled by measuring the air pressure at the inlet side of the air motor. This air pressure varies from free running to impulsing. By this measured air pressure the controller detects contact of the bolt head (point 2). Upon contact, the adjustable timer gives the shut-off signal (point 3). Adjustability of the timer takes care of adoption to either hard or soft joints. Similar, the controller detects double hits and trigger release before shut-off.

## Superior clampforces

In conventional shut-off tools point 2 is the shut-off point. Due to the above mentioned principle of the Poka Yoke+ controller, the relaxation is minimized and the correct torque and clampforce are achieved. This system is more accurate than shut-off or standard impuls wrenches. The torque is adjusted at the impulse mechanism. In combination with the parameters in the controller YTC-3, a reliable shut-off is achieved.



The whole system is more accurate than shut-off or standard impulse wrenches.



## Controller YTC-3

- Power supply: 100 - 240V AC
- Input: 8
- Relay output: 4 opening and shutting capacity: Max. DC-48W, AC-220VA
- Output for solenoid valve: 1(DC24V 2W)



## System features

- Group control
- Controlled shut-off
- Double tightening detection
- Interlock with assembly line
- Error judgement on trigger release
- Teach-in mode for programming
- Oil deterioration indication

# IMPULSE WRENCHES YLa-JQ SERIES



## Lightweight YLa-JQ series

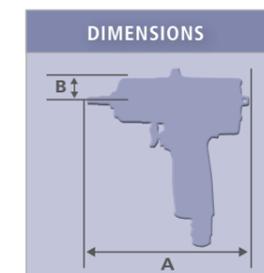
Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet thread	Hose diameter mm	Dimensions A mm	Dimensions B mm	Vibration m/s <sup>2</sup>	Noise-level dB(A)
YLa60A-JQ	1/4" Hex	6	4.000	11-20	5,0	5,5	0,78	PT 1/4"	6,5	130	22	1,4	71
YLa60E-JQ	3/8" Sq.	6	4.000	13 - 22	5,0	5,5	0,78	PT 1/4"	6,6	130	22	1,4	71
YLa70A-JQ	1/4" Hex	6 - 8	7.000	20 - 28	5,5	6,1	0,80	PT 1/4"	6,5	132	22	1,4	74
YLa70E-JQ	3/8" Sq.	6 - 8	7.000	20 - 35	5,5	6,1	0,80	PT 1/4"	6,5	132	22	1,4	74
YLa80A-JQ	1/4" Hex	8	7.000	24 - 35	5,8	9,0	0,90	PT 1/4"	6,5	139	22	1,2	75
YLa80E-JQ	3/8" Sq.	8	7.000	33 - 50	5,8	9,0	0,90	PT 1/4"	6,5	139	22	1,2	75
YLa90E-JQ	3/8" Sq.	8 - 10	6.500	47 - 70	6,7	11,8	1,00	PT 1/4"	10	148	24	1,2	78
YLa110E-JQ	1/2" Sq.	10 - 12	6.000	65 - 105	9,6	13,1	1,40	PT 1/4"	10	164	26	1,8	81
YLa120E-JQ	1/2" Sq.	12	6.600	80 - 130	10,0	15,6	1,80	PT 1/4"	10	172	28	2,2	82
YLa140E-JQ	1/2" Sq.	14	6.000	100 - 160	13,0	18,9	2,20	PT 1/4"	10	190	30	2,4	84

## Y-JQ series

Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet thread	Hose diameter mm	Dimensions A mm	Dimensions B mm	Vibration m/s <sup>2</sup>	Noise-level dB(A)
Y-41A-JQ	1/4" Hex	4 - 6	9.300	6 - 12	5,0	8,8	0,73	PT 1/4"	6,5	141	17	2,1	72
Y-46E-JQ	3/8" Sq.	5 - 6	8.000	16 - 30	5,8	9,6	0,87	PT 1/4"	6,5	158	18	1,0	80
Y-56A-JQ	1/4" Hex	6 - 8	7.000	22 - 33	6,6	9,6	0,87	PT 1/4"	10	144	21	1,0	80
Y-56E-JQ	3/8" Sq.	6 - 8	7.000	25 - 47	6,6	9,6	0,87	PT 1/4"	10	144	21	1,0	80
Y-61A-JQ	1/4" Hex	6 - 8	5.500	27 - 41	6,6	8,8	0,96	PT 1/4"	10	155	21	1,0	74
Y-61E-JQ	3/8" Sq.	6 - 8	5.500	34 - 54	6,6	8,8	0,96	PT 1/4"	10	155	21	1,0	74
Y-70E-JQ	3/8" Sq.	8 - 10	5.500	44 - 72	7,5	9,6	1,40	PT 1/4"	10	170	25	2,0	75
Y-90E-JQ	1/2" Sq.	10 - 12	5.000	78 - 116	8,3	15,1	1,85	PT 1/4"	10	177	30	1,5	72
Y-100E-JQ	1/2" Sq.	12	5.000	100 - 145	11,8	14,5	2,00	PT 1/4"	13	188	32,5	2,1	80
Y-130E-JQ	1/2" Sq.	14	3.500	140 - 220	12,8	18,3	2,50	PT 1/4"	13	201	34	2,2	83
Y-140JQ	3/4" Sq.	16	3.300	160 - 270	13,1	18,4	3,20	PT 1/4"	13	226	36	3,3	82

### \* Torque specifications

All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.



Rubber protection covers for YLa-JQ and Y-JQ impulse wrenches are included in the box.

Accessories for impulse wrenches on pages 22 & 23.

# Y-SERIES: NON SHUT-OFF

## Double chamber air motor



Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet thread	Hose diameter mm	Dimensions		Vibration m/s <sup>2</sup>	Noise-level dB(A)
										A mm	B mm		
Y-40SA <sup>1)</sup>	1/4" Hex	4 - 6	10.000	6 - 12	5,0	7,6	0,84	PT 1/4"	6,5	229	17	4,6	69
Y-41A	1/4" Hex	4 - 6	9.300	6 - 12	5,0	8,8	0,73	PT 1/4"	6,5	141	17	2,1	72
Y-46E	3/8" Sq.	5 - 6	8.000	16 - 30	5,8	9,6	0,87	PT 1/4"	6,5	158	18	1,0	80
Y-46A	1/4" Hex	5 - 6	8.000	16 - 26	5,8	9,6	0,87	PT 1/4"	6,5	158	18	1,0	80
Y-56E	3/8" Sq.	6 - 8	7.000	25 - 47	6,6	9,6	0,87	PT 1/4"	10	144	21	1,0	80
Y-56A	1/4" Hex	6 - 8	7.000	22 - 33	6,6	9,6	0,87	PT 1/4"	10	144	21	1,0	80
Y-61E	3/8" Sq.	6 - 8	5.500	34 - 54	6,6	8,8	0,96	PT 1/4"	10	155	21	1,0	74
Y-61A	1/4" Hex	6 - 8	5.500	27 - 41	6,6	8,8	0,96	PT 1/4"	10	155	21	1,0	74
Y-70E	3/8" Sq.	8 - 10	5.500	44 - 72	7,5	9,6	1,40	PT 1/4"	10	170	25	2,0	75
Y-90E	1/2" Sq.	10 - 12	5.000	78 - 116	8,3	15,1	1,85	PT 1/4"	10	177	30	1,5	72
Y-100E	1/2" Sq.	12	5.000	100 - 145	11,8	14,5	2,00	PT 1/4"	13	188	32,5	2,1	80
Y-130E	1/2" Sq.	14	3.500	140 - 220	12,8	18,3	2,50	PT 1/4"	13	201	34	2,2	83
Y-140	3/4" Sq.	16	3.300	160 - 270	13,1	18,4	3,20	PT 1/4"	13	226	36	3,3	82

<sup>1)</sup> The Y-40SA is a straight model, all other types are pistol models.

**\* Torque specifications**

All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.

# YX-SERIES: NON SHUT-OFF

## Angle models



Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet thread	Hose diameter mm	Dimensions			Vibration m/s <sup>2</sup>	Noise-level dB(A)
										A mm	B mm	D mm		
YX-280C	3/8" Hex	4 - 6	10.000	15 - 24	5,0	7,8	1,40	PT 1/4"	6,5	257	16,0	50	4	83
YX-500C	3/8" Hex	6 - 8	7.500	30 - 45	5,0	8,6	1,50	PT 1/4"	6,5	266	18,0	66	10	73
YX-700C	3/8" Hex	8 - 10	5.000	36 - 50	5,8	10,8	1,80	PT 1/4"	6,5	289	18,0	70	8,6	72

**\* Torque specifications**

All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.

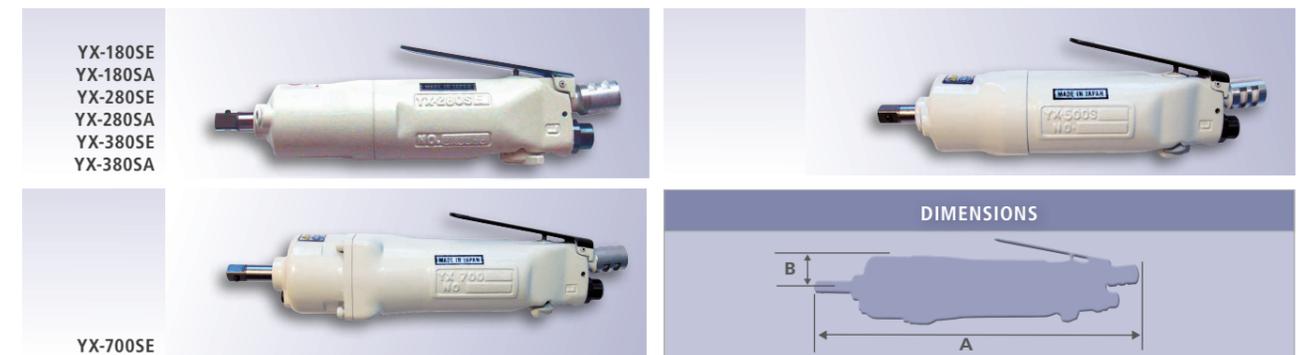
# YX-SERIES: NON SHUT-OFF

## Pistol models



Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet thread	Hose diameter mm	Dimensions		Vibration m/s <sup>2</sup>	Noise-level dB(A)
										A mm	B mm		
YX-180E	3/8" Sq.	4 - 6	10.500	19 - 31	4,2	7,8	1,00	PT 1/4"	6,5	169	23	3	72
YX-180A	1/4" Hex	4 - 6	10.500	18 - 30	4,2	7,8	1,00	PT 1/4"	6,5	169	23	3	72
YX-280E	3/8" Sq.	6 - 8	10.500	25 - 38	5,0	9,1	1,02	PT 1/4"	6,5	180	23	2	70
YX-280A	1/4" Hex	6 - 8	10.500	20 - 34	5,0	9,1	1,02	PT 1/4"	6,5	180	20	2	70
YX-380E	3/8" Sq.	8	10.000	34 - 47	5,0	9,1	1,24	PT 1/4"	6,5	180	25	2,1	75
YX-380A	1/4" Hex	6 - 8	10.000	29 - 44	5,0	9,1	1,24	PT 1/4"	6,5	180	25,5	2,1	75
YX-500E	3/8" Sq.	8 - 10	8.200	31 - 55	5,8	11,2	1,40	PT 1/4"	6,5	173	26,5	2	68
YX-700E	3/8" Sq.	8 - 10	8.000	45 - 78	6,7	13,5	1,60	PT 1/4"	10	185	26,5	2	68
YX-900E	1/2" Sq.	10	6.500	70 - 111	6,7	12,8	2,00	PT 1/4"	10	201	30,5	2	72
YX-1100E	1/2" Sq.	10 - 12	4.700	85 - 123	7,5	13,6	2,20	PT 1/4"	10	210	30,5	2,5	72
YX-1400E	1/2" Sq.	12 - 14	6.000	102 - 148	8,3	15,1	2,70	PT 1/4"	10	214	33,5	2,6	78
YX-1900E	1/2" Sq.	12 - 14	5.800	140 - 201	8,3	15,1	3,40	PT 1/4"	10	224	35,5	3	79
YX-2400E	1/2" Sq.	14 - 16	4.200	175 - 279	9,2	16,8	4,10	PT 1/4"	10	236	37,0	5,3	77
YX-3000	3/4" Sq.	16 - 18	4.700	200 - 304	10,0	20,5	4,60	PT 1/4"	13	246	40,0	3,9	80
YX-4500	3/4" Sq.	18 - 20	3.400	392 - 490	11,6	24,0	9,80	PT 3/8"	13	300	65,0	3,9	87

## Straight models



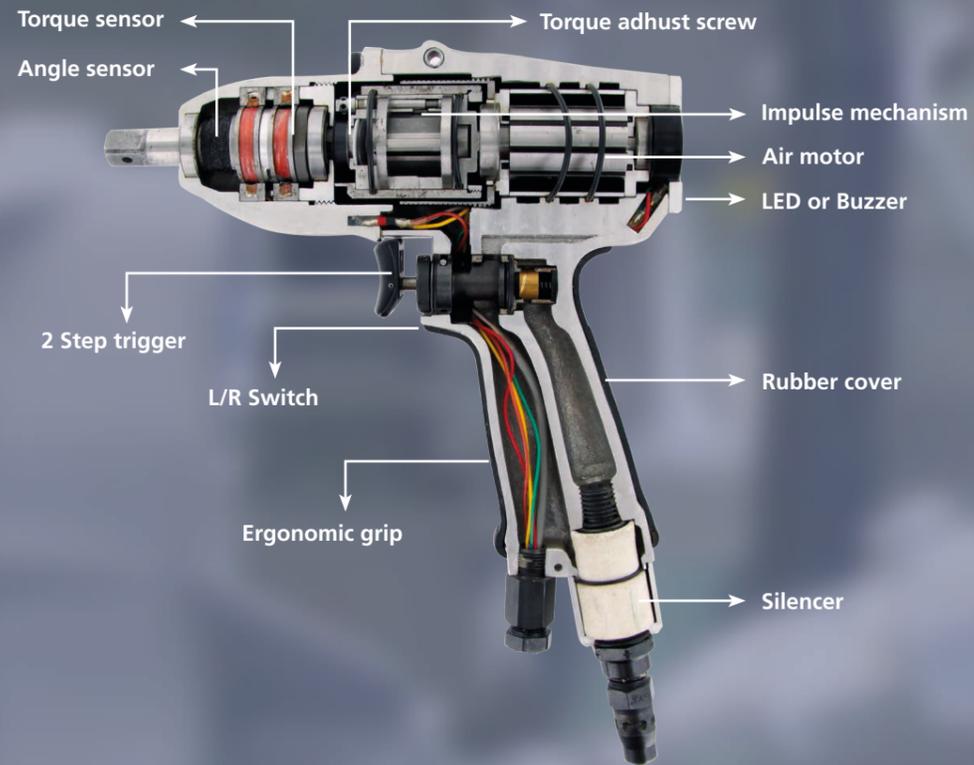
Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet thread	Hose diameter mm	Dimensions		Vibration m/s <sup>2</sup>	Noise-level dB(A)
										A mm	B mm		
YX-180SE	3/8" Sq.	4 - 6	10.500	19 - 31	4,2	7,8	0,96	PT 1/4"	6,5	220	23	3,3	73
YX-180SA	1/4" Hex	4 - 6	10.500	18 - 30	4,2	7,8	0,96	PT 1/4"	6,5	220	23	3,3	73
YX-280SE	3/8" Sq.	6 - 8	10.500	25 - 38	5,0	9,1	1,02	PT 1/4"	6,5	232	23	4	73
YX-280SA	1/4" Hex	6	10.500	20 - 34	5,0	9,1	1,02	PT 1/4"	6,5	232	23	4	73
YX-380SE	3/8" Sq.	8	10.000	32 - 47	5,0	9,1	1,18	PT 1/4"	6,5	232	25,5	3,3	75
YX-380SA	1/4" Hex	6 - 8	10.000	29 - 44	5,0	9,1	1,18	PT 1/4"	6,5	232	25,5	3,3	75
YX-500SE	3/8" Sq.	8 - 10	7.500	31 - 55	5,0	11,2	1,25	PT 1/4"	6,5	241	25,5	6,6	74
YX-700SE	3/8" Sq.	8 - 10	5.000	35 - 62	5,8	13,5	1,50	PT 1/4"	6,5	262	26,5	6,6	72

**\* Torque specifications**

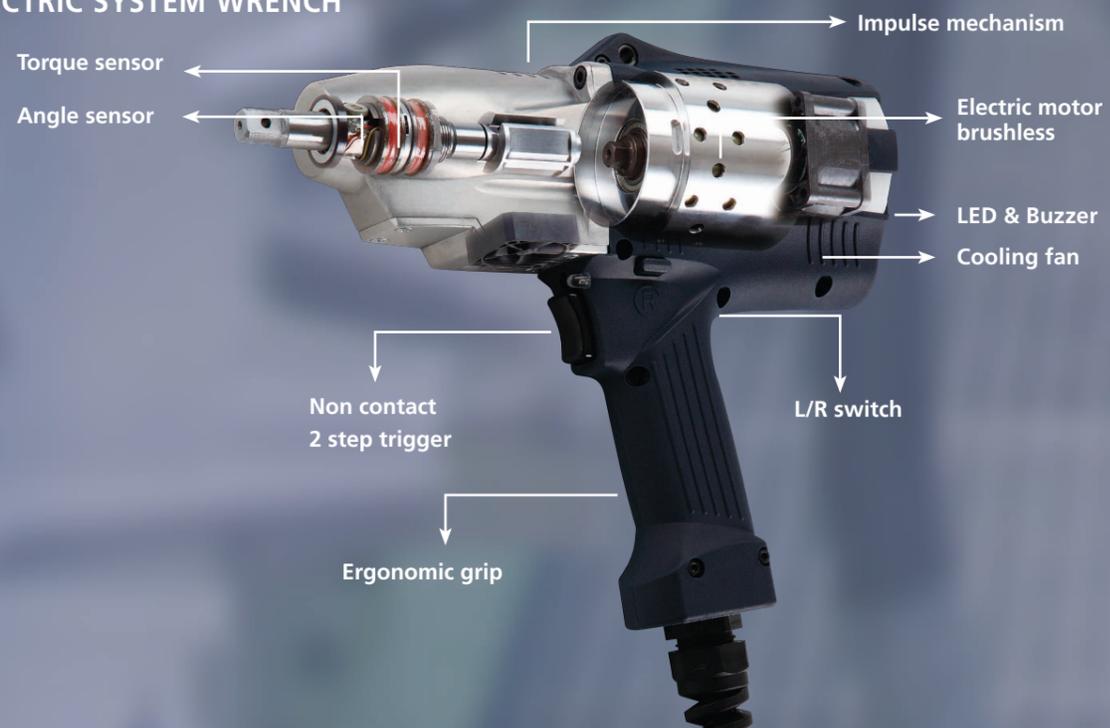
All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.

# INTELLIGENT INSTALLATION SYSTEMS SYSTEM WRENCHES

## SYSTEM WRENCH

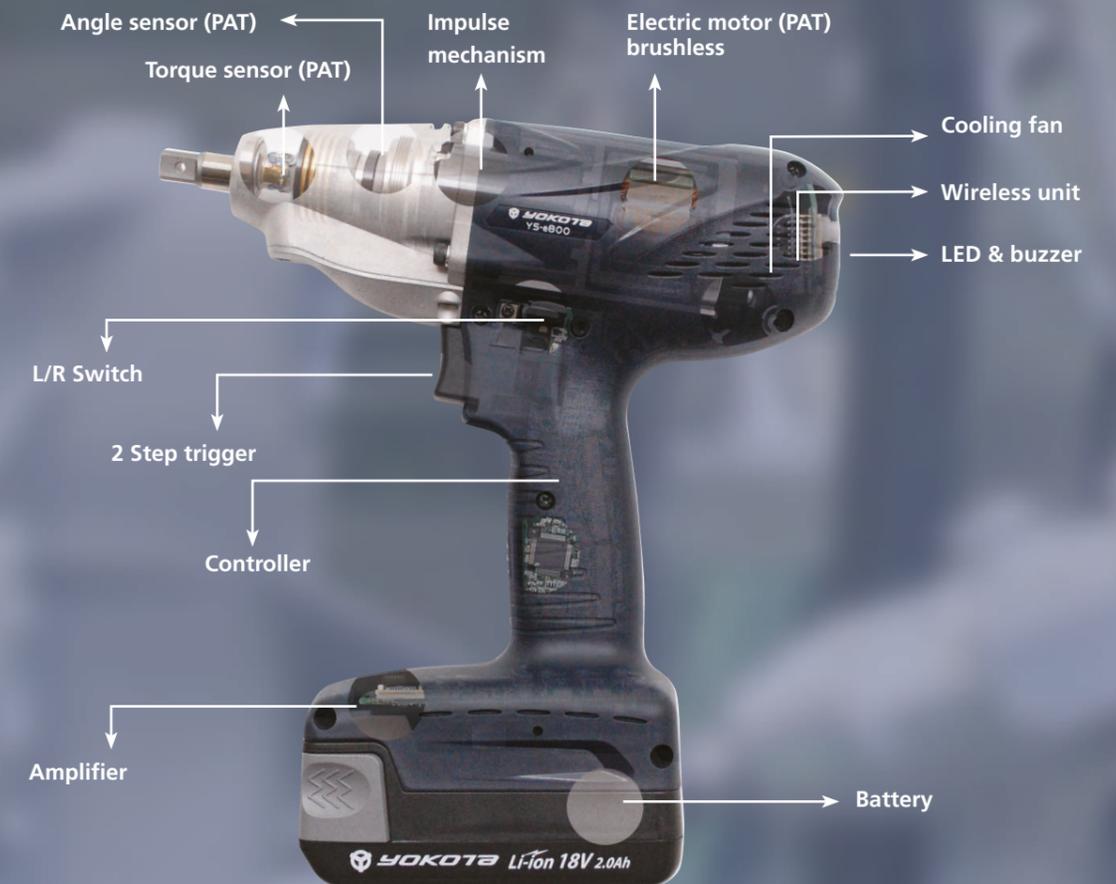


## ELECTRIC SYSTEM WRENCH

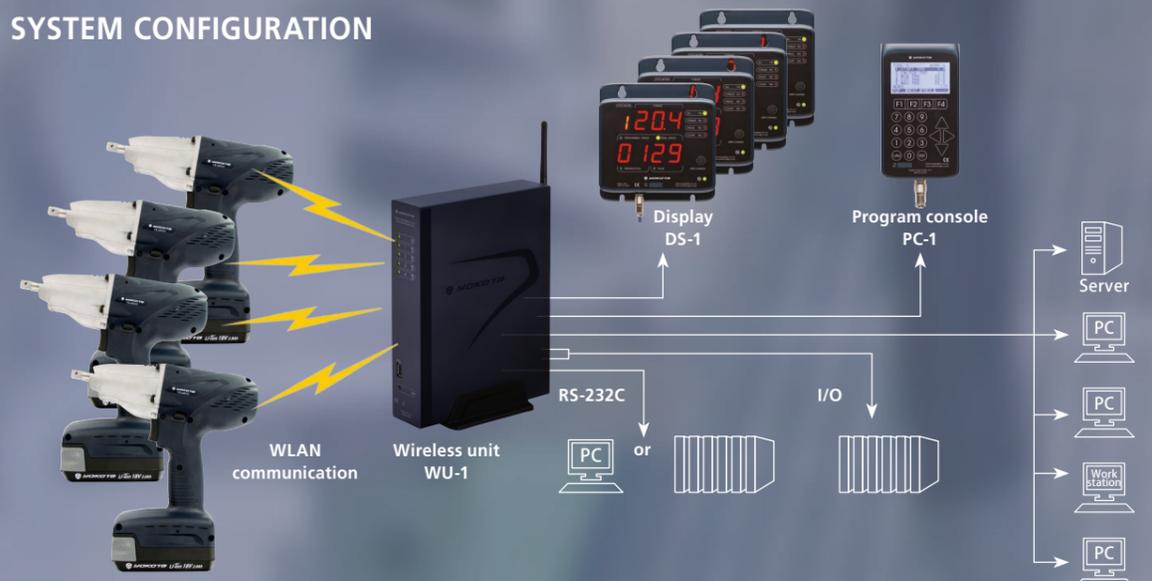


# INTELLIGENT INSTALLATION SYSTEMS SYSTEM WRENCHES

## BATTERY SYSTEM WRENCH



## SYSTEM CONFIGURATION



# CONTROL UNIT FOR THE TKa SERIE

YOKOTA Japan developed the system wrench with torque control more than 25 years ago, in order to tighten and shut-off the impulse wrench at the target torque with the features as insufficient or over torque, error detection, bolt counting, group control, production line management, data saving etc. Due to increased market demands for accuracy and error detection, YOKOTA integrated the additional angle monitoring function. By controlling the angle during the tightening process, all possible errors can be detected.

## High accuracy

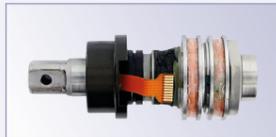
Product liability is essential to car manufacture. All tightened joints have to be correct. For this reason critical joints must be counted, documented and, of course, tightened with the right clamping force. In order to do this, you need an impulse wrench (with a built-in transducer) connected to a controller. This system ensures that only OK joints are counted resulting in "Zero Fault Production". This fail-safe system fits perfectly in the **Poka Yoke Strategy**.

## Optional on TKa system wrenches:



● Green= OK ● Red = NOK  
Visible from every angle: left, right, from top and behind.

## Transducer for the YEX, YED and TKa series



The strain gauges are positioned on the main shaft, picking up the twisting torque on the main shaft at each impulse as close as possible to the socket. The electric signals are transmitted by induction through the internal- and external coils. Due to this principle the YOKOTA transducer is very reliable, accurate and without wear.

CHARACTERISTICS

- Easy to program, according to application specifications
- Easy to program with PC
- Torque calculation over several impulsions
- Compensation impulses to compensate the relaxation (soft joint)
- Poka Yoke proof, line management
- 2-step tightening optional
- 8 setting programs
- Parallel and RS-232 connectors standard 2-way communication through RS-232
- Automatic program change (sequence programmable)
- Real time clock
- Build-in timer for group control
- Several input signals
- Several output signals
- Statistics inside CP / CPK
- Memory for 10.000 cycles
- Transducer integrated, direct measurement
- Angle encoder integrated
- Compact angle encoder
- Torque transducer non - contact type
- Torque - and angle curve on PC
- Easy torque adjustment on the tool
- LED or acoustic signal on the tool
- High efficiency air motor
- Shut-off by external solenoid valve

POSSIBLE ERRORS

- Detection insufficient torque and over torque
- Detection friction coefficient out of tolerances
- Detection of too long / too short bolt
- Detection of seizure
- Detection of cross threaded threads
- Detection of crooked threads
- Detection of damaged threads
- Detection of double tightening
- Detection of blind holes

# SYSTEM WRENCHES TKa SERIES

## Electronic torque control & angle monitoring



Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Dimensions		Vibration m/s <sup>2</sup>	Noise-level dB(A)
								A mm	B mm		
TKa600A	1/4" Hex	6	6.000	11-16	4,5	5,1	1,34	189	21	2,1	71
TKa600	3/8" Sq.	6	6.000	14-20	4,5	5,1	1,34	189	21	2,1	71
TKa700A	1/4" Hex	6-8	7.000	24-33	5,3	6,9	1,34	189	21	2,1	75
TKa700	3/8" Sq.	6-8	7.000	24-33	5,3	6,9	1,34	189	21	2,1	75
TKa800	3/8" Sq.	8	7.000	32-46	5,3	7,1	1,34	196	22	2,1	75
TKa900	3/8" Sq.	8-10	6.500	47-60	6,8	10,5	1,50	204	23	2,1	78
TKa1110	1/2" Sq.	10-12	5.500	65-95	8,8	13,5	1,97	220	25,5	2,2	80
TKa1200	1/2" Sq.	12	5.900	85-130	10	17,2	2,4	223	28	2,2	82
TKa1400	1/2" Sq.	14	5.200	100-160	13	19	3,00	246	29,0	2,2	84
TKa1500	1/2" Sq.	14-16	4.500	150-220	13,2	18,1	3,4	242	32	2,4	84

### YETC-230ER



- Torque control
- Angle monitoring version
- One channel controller
- LAN version optional

### YETC-330ER2-L



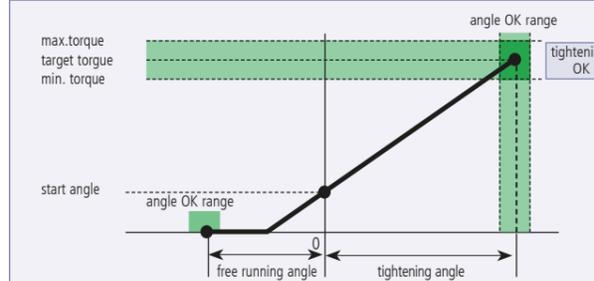
- Torque control
- Angle monitoring version
- Two channel controller
- Two tools can be operated simultaneous
- LAN standard, two IP addresses

### ANALYSING SOFTWARE



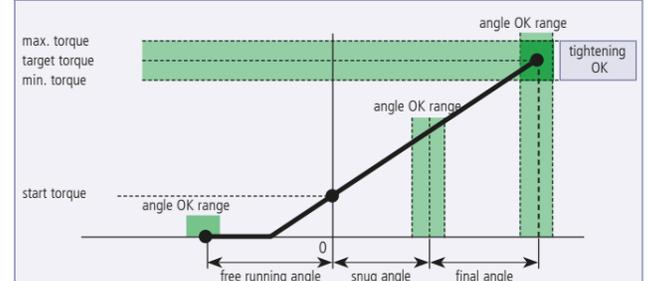
### YETC-230ER

Torque control & angle monitoring



### YETC-330ER2-L

Torque control & angle monitoring including snug torque



# INTELLIGENT INSTALLATION SYSTEMS SYSTEM WRENCHES TKa/YED SERIES

## Torque controlled



Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet-thread	Hose diameter-mm	Dimensions A mm	B mm	Vibration m/s <sup>2</sup>	Noise-level dB(A)
TKa60A	1/4" Hex	6	6.000	11 - 16	4,5	5,1	1,3	PT 1/4"	6,5	179	22	2,1	71
TKa70A	1/4" Hex	6 - 8	7.000	20 - 27	5,3	6,9	1,3	PT 1/4"	6,5	179	22	2,1	75
TKa80A	1/4" Hex	8	7.000	24 - 33	5,3	7,1	1,3	PT 1/4"	6,5	186	22	2,1	73
TKa60	3/8" Sq.	6	6.000	14 - 20	4,5	5,1	1,3	PT 1/4"	6,5	179	22	2,1	71
TKa70	3/8" Sq.	6 - 8	7.000	20 - 35	5,3	6,9	1,3	PT 1/4"	6,5	179	22	2,1	75
TKa80	3/8" Sq.	8	7.000	32 - 46	5,3	7,1	1,3	PT 1/4"	6,5	186	22	2,1	73
TKa90	3/8" Sq.	8 - 10	6.500	47 - 70	6,8	10,5	1,5	PT 1/4"	9,5	195	24	2,1	78
TKa110	1/2" Sq.	10 - 12	6.000	65 - 105	8,8	13,5	1,9	PT 1/4"	9,5	210	26	2,2	80
TKa120	1/2" Sq.	12	5.900	85 - 130	10,0	17,2	2,4	PT 1/4"	9,5	223	28	2,2	82
TKa140	1/2" Sq.	14	5.200	100 - 160	13,0	19,0	2,9	PT 1/4"	9,5	235	30	2,2	84
TKa150	1/2" Sq.	14 - 16	4.200	150 - 220	13,2	18,1	3,4	PT 1/4"	9,5	242	32	2,4	84
YED-200	3/4" Sq.	20	3.400	155 - 360	18,3	32,2	6,8	PT 1/2"	12,7	309	40	4,2	86
YED-240S <sup>1)</sup>	1" Sq.	24	3.000	250 - 600	28,3	52,2	11,2	PT 1/2"	12,7	452	52,5	15,0	92

<sup>1)</sup>YED-240S is a straight model

### \* Torque specifications

All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.

## Multi fastening controller for the TKa, YED, YEX Series



One channel controller



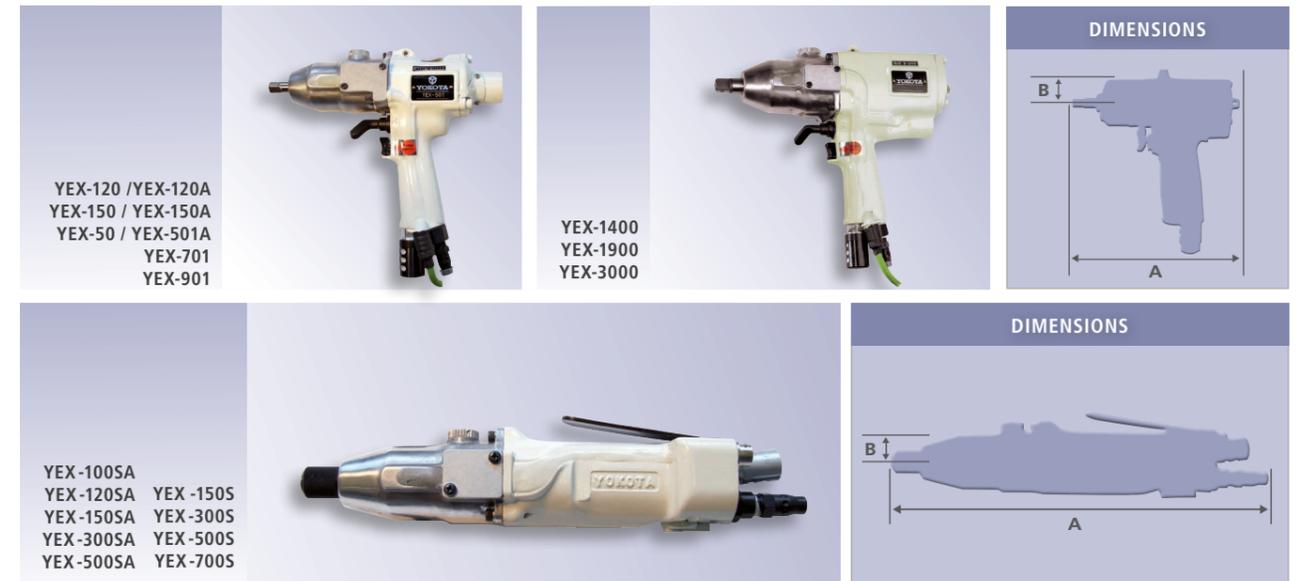
Four channel controller, several tools can be used at one time



Two channel controller, two tools can be operated simultaneous

# INTELLIGENT INSTALLATION SYSTEMS SYSTEM WRENCHES YEX-SERIES

## Torque controlled



Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm*	Load aircons. l/s	No-load aircons. l/s	Weight kg	Inlet-thread	Hose diameter-mm	Dimensions A mm	B mm	Vibration m/s <sup>2</sup>	Noise-level dB(A)
YEX-100SA	3/8" Hex	5	8.000	4.3 - 12	3,6	4,4	1,2	PT 1/4"	9,5	285	23	3	77
YEX-120	3/8" Sq.	4 - 5	9.000	13 - 17	4,2	5	1,43	PT 1/4"	9,5	222	23	3	72
YEX-120A	1/4" Hex	4 - 5	9.000	11 - 15	4,2	5	1,43	PT 1/4"	9,5	223	23	3	72
YEX-120SA	1/4" Hex	4 - 5	7.000	11 - 15	4,2	5	1,38	PT 1/4"	9,5	279	23	3	72
YEX-150	3/8" Sq.	5 - 6	9.000	19 - 27	4,2	7,8	1,43	PT 1/4"	9,5	222	23	3	72
YEX-150A	1/4" Hex	5 - 6	9.000	14 - 22	4,2	7,8	1,43	PT 1/4"	9,5	223	23	3	72
YEX-150S	3/8" Sq.	5 - 6	8.000	19 - 27	4,2	7,8	1,35	PT 1/4"	9,5	275	23	3,3	73
YEX-150SA	1/4" Hex	5 - 6	8.000	14 - 22	4,2	7,8	1,35	PT 1/4"	9,5	276	23	3,3	73
YEX-300S	3/8" Sq.	6	8.000	25 - 33	5,0	9,1	1,8	PT 1/4"	9,5	312	27	5,3	71
YEX-300SA	1/4" Hex	6	8.000	21 - 29	5,0	9,1	1,8	PT 1/4"	9,5	313	27	5,3	71
YEX-501	3/8" Sq.	6 - 8	8.200	25 - 52	5,3	9,6	2,0	PT 1/4"	9,5	234	26,5	1,6	68
YEX-501A	1/4" Hex	6 - 8	8.200	23 - 49	5,3	9,6	2,0	PT 1/4"	9,5	227	26,5	1,6	68
YEX-500S	3/8" Sq.	6 - 8	7.800	23 - 49	5,0	9,1	2,1	PT 1/4"	9,5	333	27	6,6	71
YEX-500SA	1/4" Hex	6 - 8	7.800	21 - 47	5,0	9,1	2,1	PT 1/4"	9,5	224	27	6,6	71
YEX-700S	3/8" Sq.	8	7.500	33 - 61	5,8	11,2	2,3	PT 1/4"	9,5	333	27	6,6	72
YEX-701	3/8" Sq.	8 - 10	8.000	45 - 75	6,7	13,5	2,2	PT 1/4"	9,5	246	26,5	1,6	71
YEX-901	1/2" Sq.	10	6.100	61 - 104	6,7	12,5	2,7	PT 1/4"	9,5	257	33,5	2,3	73
YEX-1400	1/2" Sq.	10 - 12	5.900	92 - 142	8,3	16,5	3,5	PT 1/4"	9,5	266	34	3	80
YEX-1900	1/2" Sq.	12	5.800	115 - 183	8,3	15,8	4,1	PT 1/4"	9,5	277	39	3	80
YEX-3000	3/4" Sq.	16	4.000	186 - 284	10,0	20,5	6,4	PT 1/4"	12,7	309	40	4	82

Note: S and SA types are straight models.

### \* Torque specifications

All specified torques are measured on the YOKOTA testers, series YET, at a dynamic airpressure of 0.63MPa. The YOKOTA testers have a static transducer, the specified torques are therefore to be used as a guidance only. In general the torque range will be lower in case of using lower airpressure, extension bars, torx or hexagon inset sockets, soft joints, etc.

### For a system YEX, YED or TKa you need:

- 1 x Controller YETC-230 or YETC-330
- 1 x Impulse wrench YEX, YED or TKa
- 1 x Solenoid valve YETC-2 SVD
- 1 x Tool cable (page 22)

# INTELLIGENT INSTALLATION SYSTEMS ELECTRIC SYSTEM WRENCHES

The YOKOTA electric system wrenches with integrated torque transducer and angle sensor offer a large reduction of energy consumption, a high degree of accuracy and fantastic work efficiency.

## Electric drive:

- Reduction of energy consumption → Lean and Green.
- No need for pneumatic installation with compressor, air piping, hose and solenoid valves.
- No need for lubrication of the tool. Good for the working environment, especially near paint shops.
- Due to the newly developed outer rotor servo motor and the composite body, the YOKOTA system e-wrench has lightest weight in its class.

## Reliable and accurate tightening:

- Faulty tightening detection with the maximum accuracy due to the use of an integrated torque transducer and also an integrated angle sensor.
- During the tightening process, four different variables are measured and monitored: Torque - Angle - Time - N°. of Impulses.
- Torque transducer and angle sensor located directly at the front of the main shaft, giving the best accuracy of measurement.
- Torque transducer measures directly and transmits the signals contactless.
- The angle sensor is an extremely compact (PAT) rotary encoder that detects both angle as well as direction by 1 degree, signal transmission contactless.
- Detects cross threads, double hits, contamination, etc.

## Durability:

- The impulse unit is supported on both ends by ball bearings (PAT.P).
- The impulse unit has a check valve mechanism (PAT.P) to reduce oil pressure on the main shaft.
- For heat suppression of the impulse unit it is equipped with a separate cooling fan.
- For heat suppression of the motor it is equipped with a cooling fan that reduced motor size (and weight at the same time).

## Operator comfortability:

- The reaction forces are close to zero due to the use of the oil impulse mechanism, even at high torque bolt tightening.
- Compared with older models, the number of bolt tightening is improved to 20 bolts/minute.



New developed outer rotor motor

- Special feature to prevent cross threaded tightening: reversely rotating a bolt to a preset angle at the start of tightening.
- High speeds: Free speed (bolt run down) of 4800 RPM.
- High intensity LED light to project on the bolt.
- Combinations of buzzers and LED (Green / Red) for operator feedback on OK / NG tightenings.
- Motor speed freely adjustable in the controller.  
For three different speed stages:  
Start of trigger / Run down / Final tightening.

## Controller features:

- 20 different parameter settings possible, for a variety of different work pieces.
- Touch screen LCD color display, showing graphs, torque, angle, impulses and more.
- Group management function (counting).
- Result of tightening output through various interfaces: USB, RS-232C, I/O and Ethernet connector.
- Simultaneous use of two tools on one controller is possible.

Type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm	Weight kg	Length mm	Side to center mm	Vibration m/s <sup>2</sup>	Noise level dB(A)
E-M500	3/8" Sq.	M5-M6	300-4.800	3 - 10	2,10	236	32,5	< 2,5	75
E-M700	3/8" Sq.	M6-M8	300-4.800	7,5 - 35	2,18	236	32,5	< 2,5	75
E-M900	3/8" Sq.	M8-M10	300-4.800	30 - 60	2,25	236	32,5	< 2,5	78
E-M1100	1/2" Sq.	M10-M12	300-4.800	50 - 90	2,52	248	32,5	< 2,5	80

# INTELLIGENT INSTALLATION SYSTEMS HYBRID TECHNOLOGY

ACCESSORIES



## Controller YETC-500

For electric system wrenches with built-in angle sensor

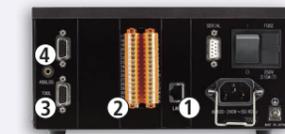


### Controller front panel



1. Touch panel type LCD
2. RS-232C serial connector
3. USB connector

### Controller back panel



1. Ethernet connector (option)
2. I/O terminal board
3. Tool connector 1
4. Tool connector 2

### Controller

Description	Order number
LAN Ethernet-Version	YETC-500-10SL
Serial communication	YETC-500-10SO

### Amplifier

Order number
E-PDA-4

### Extension toolcable

Description	Order number
5 m	7906-1591-00-01
10 m	7906-1591-00-02

### Controller link up cable

Description	Order number
30 cm	7906-1592-00-01

# INTELLIGENT INSTALLATION SYSTEMS BATTERY SYSTEM E-WRENCH

YOKOTA impulse wrenches are powerful, very accurate and most important, have no kick-back. The YOKOTA system e-wrench has a built-in torque transducer and angle-encoder on the main shaft and is wireless connected to a controller. Each controller can connect with up to 4 independently operating battery system e-wrenches. The YOKOTA battery system e-wrench is the perfect solution for applications where cables or hoses are disruptive, but you still need to have all data checked, controlled and documented.



## CHARACTERISTICS

- Complete freedom of movement by use of batteries
- Very low weight / torque ratio
- High speed fastening
- Acoustic and LED signals for tightening status indication
- No Kickback
- Electric (brushless) servo drive, freely RPM adjustable
- Hybrid technology
- 100% check on tightening abnormalities like cross thread, double hit, etc.

Type	Volt. V	Battery type	Square / Hex drive	Bolt capacity mm	RPM	Torque Nm	Weight kg	Vibration m/s <sup>2</sup>	Noise level dB(A)
YS-e600	18 V	Li-ion 2 AH	3/8" Sq.	6	1.200-4.800	7-20	1,75	<2,5	72
YS-e800	18 V	Li-ion 2 AH	3/8" Sq.	8	1.200-4.800	15-35	1,80	<2,5	76
YS-e900	18 V	Li-ion 2 AH	3/8" Sq.	8-10	1.200-4.800	30-50	1,90	<2,5	78
YS-e950	18 V	Li-ion 2 AH	3/8" Sq.	10	1.200-4.800	40-60	1,94	<2,5	78

## ACCESSORIES



Type	Order number
Wireless unit	WU-1
Display	DS-1
Programming console	PC-1
Li-Ion-Battery (0,36 kg) 18V 2 Ah	BPL-1820
Charger 18 Volt (40 Min.)	BC0075G

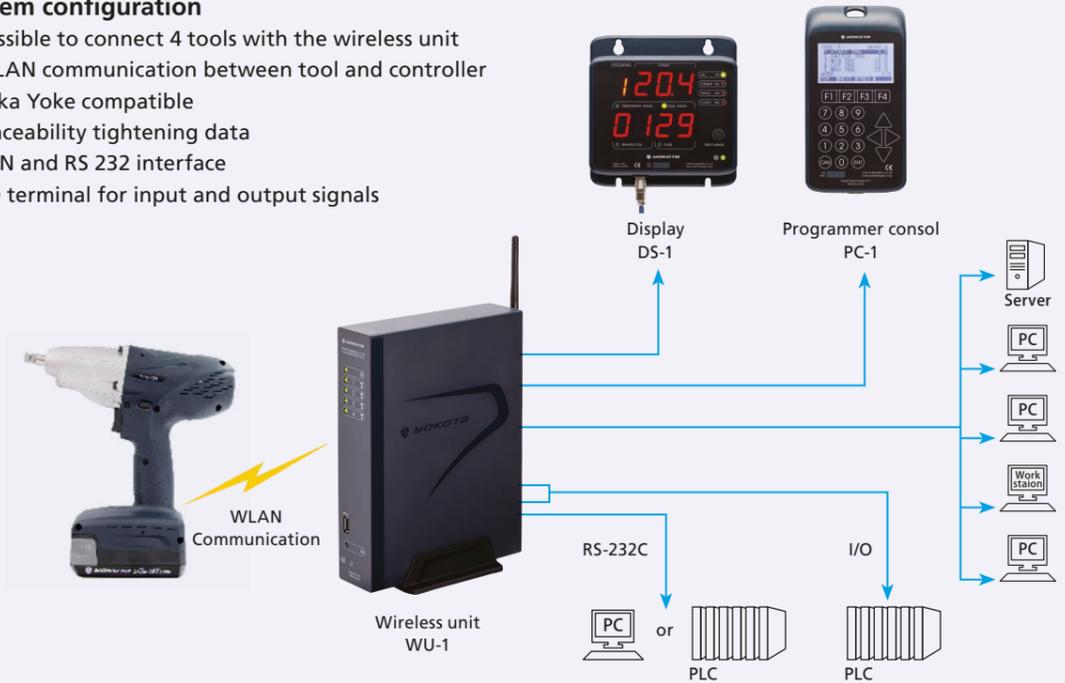
Rubber protection cover	Ordernumber
YS-e600	0444-0029-00-00
YS-e800	0445-0029-00-00
YS-e900	0446-0029-00-00
for battery	0446-0029-00-01

# INTELLIGENT INSTALLATION SYSTEMS BATTERY SYSTEM E-WRENCH

## SYSTEMCONFIGURATION

### System configuration

- Possible to connect 4 tools with the wireless unit
- WLAN communication between tool and controller
- Poka Yoke compatible
- Traceability tightening data
- LAN and RS 232 interface
- I/O terminal for input and output signals



### Wireless unit WU-1

- Parameter input with PC-1 or computer
- USB: setting data back up and restore, memory read out.
- Memory for 10.000 cycles per tool
- Tightening results on DS-1 and/or PC-1
- 4 display connections



### Display DS-1

- Display shows: tool number, program, torque, OK/NOK, angle, number of pulses, remaining tightenings.



### Programming console PC-1

- For setting the parameters
- Tightening results are displayed
- OK/NOK is displayed



# ACCESSORIES

## Battery and charger for battery impulse wrenches

### Battery for YBX-600T/800T

For type	Description	Order number	
YBX-600TE YBX-600TA YBX-800TE YBX-800TA	22,2 V / 1,5 Ah Li-ion, type BL 22, charging time: 20 minutes	0351-1521-03-99	
-	Rubber protection cover for battery	0351-0029-00-01	

### Charger for YBX-600T/800T

For type	Description	Order number	
YBX-600TE YBX-600TA YBX-800TE YBX-800TA	100 - 240 Volt, type BC200 charging time: 20 minutes	7679-0000-01-00	

### Battery for YBX-50

For type	Description	Order number	
YBX-1 YBX-50	9,6 Volt / 2,0 Ah, Type EB-9B, Ni-Cd	8530-3001-00-01	

### Charger for YBX-50

For type	Description	Order number	
YBX-1 YBX-50	230 Volt, Typ UC24YC charging time: 20 minutes	8530-4006-00-00	

## Valves for system wrenches

### Valves for system wrenches

Description	Order number	
3/8" NC	VP542-5Y01-03FA	
3/8" NO	VP542-5Y01-03FB	
1/2" NC	VP742-5Y01-04FA	
1/2" NO	VP742-5Y01-04FA	

### 2 Step valve set

Description	Order number	
3/8" NC	YETC - 2 SVD 3/8	
1/2" NC	YETC - 2SVD 1/2	

### Electronic valve for two step tightening

Description	Order number	
1/2" NC	ITV3050-404BS3-CPL	

## (Spring) balancers



### Standard model

Type	Brand	Capacity kg	Cable length m	Weight kg
EK-00	RRI	0,5 - 1,5	0,5	0,2
EK-0	RRI	0,5 - 1,5	1	0,5
TW-3	RRI	1 - 3	1,3	1,4
TW-5	RRI	2,5 - 5	1,3	1,5
TW-9	RRI	4,5 - 9	1,3	3,4
TW-15	RRI	9 - 15	1,3	3,8

### Hosereel with integrated cable

Type	Brand	Capacity kg	Cable length m	Weight kg	Hose dia. mm	Air cons. l/min.	Inlet-thread
HTB-0	RRI	0,5 - 1,5	1,3	1,58	6,5	700	PT 1/4"
HTB-1	RRI	1,5 - 3	1,3	1,66	6,5	700	PT 1/4"
HTB-2	RRI	3 - 5	1,3	1,73	6,5	700	PT 1/4"

### Longs stroke

Type	Brand	Capacity kg	Cable length m	Weight kg
ELF-3	RRI	1,5 - 3	2,5	4,1
ELF-5	RRI	3 - 5	2,5	4,2
ELF-9	RRI	5 - 9	2,5	4,7
ELF-15	RRI	9 - 15	2,5	10

## Toolcable for system wrenches

Toolcable	Order number
7 meter, 2 connectors, female	7802-1581-00-06
10 meter, 2 connectors, female	7802-1581-00-08
12 meter, 2 connector, female	7802-1581-00-09
15 meter, 2 connector, female	7802-1581-00-10
10 meter extension cable (f/m)	7802-1580-00-09
Connection cable, 50 cm	7802-1579-00-01

## Special joint for YTC-3 controller

For type	Order number
Special joint for 3/8" tool	7671-0077-00-97
Special joint for 1/4" bigger size tool	7671-0077-00-98
Special joint for 1/4" smaller size tool	7671-0077-00-99

# ACCESSORIES

## Rubber protection cover for impulse- & system wrenches



For type	Order number	For type	Order number
E-M500	0368-0029-00-01	YLa60	0189-0029-00-00
E-M700	0368-0029-00-01	YLa70	0189-0029-00-00
E-M900	0368-0029-00-01	YLa80	0191-0029-00-00
E-M1100	0378-0029-00-01	YLa90	0188-0029-00-00

For type	Order number	For type	Order number
TKa60	0186-0029-00-00	YLa120	0345-0029-00-00
TKa70	0186-0029-00-00	YLa140	0346-0029-00-00
TKa80	0193-0029-00-00		

For type	Order number	For type	Order number
TKa90	0181-0029-00-00	YLT50	0371-0029-00-00
TKa110	0187-0029-00-00	YLT60	0371-0029-00-00
TKa120	0342-0029-00-00	YLT70	0372-0029-00-00
TKa140	0341-0029-00-00	YLT80	0373-0029-00-00
TKa150	0343-0029-00-00	YLT110	0379-0029-00-00
TKa600	0358-0029-00-00	YLT120	0380-0029-00-00
TKa700	0358-0029-00-00	YLT140	0381-0029-00-00
TKa800	0360-0029-00-00	YLT150	0382-0029-00-00
TKa900	0355-0029-00-00		

For type	Order number	For type	Order number
TKa1110	0356-0029-00-00	YS-e600	0444-0029-00-00
TKa1200	0388-0029-00-00	YS-e800	0445-0029-00-00
TKa1400	0357-0029-00-00	YS-e900	0446-0029-00-00
TKa1500	0384-0029-00-00		

For type	Order number	For type	Order number
Y-41	0161-0029-00-00	YX-180	0089-0029-00-00
Y-46	0160-0029-00-00	YX-280	0081-0029-00-00
Y-56	0159-0029-00-00	YX-380	0086-0029-00-00
Y-61	0158-0029-00-00	YX-500	0077-0029-00-01
Y-70	0135-0029-00-00	YX-700	0129-0029-00-01
Y-90	0141-0029-00-00	YX-900	0237-0029-00-01
Y-100	0334-0029-00-00	YX-1100	0241-0029-00-00
Y-130	0335-0029-00-00	YX-1400	0322-0029-00-00
Y-140	0412-0029-00-00	YX-1900	0320-0029-00-01
Y-T40	0169-0029-00-00	YX-2400	0406-0029-00-01
Y-T45	0164-0029-00-00	YX-3000	0405-0029-00-00
Y-T55	0164-0029-00-00		
Y-T70	0166-0029-00-00		
Y-T90	0167-0029-00-00		

For type	Order number	For type	Order number
YBX-50	0928-0029-00-00		
YBX-600T	0351-0029-00-00		
YBX-800T	0352-0029-00-00		

For type	Order number	For type	Order number
YED-200	0409-0029-00-00		
YEX-120	0093-0029-00-00		
YEX-150	0093-0029-00-00		
YEX-501	0260-0029-00-00		
YEX-701	0143-0029-00-00		
YEX-901	0261-0029-00-00		
YEX-1400	0323-0029-00-00		
YEX-1900	0321-0029-00-00		
YEX-3000	0407-0029-00-00		

For type	Order number	For type	Order number
YLa60	0189-0029-00-00	YX-80	0095-0029-00-99
YLa70	0189-0029-00-00	YX-180	0089-0029-01-99
YLa80	0191-0029-00-00	YX-280	0089-0029-01-99
YLa90	0188-0029-00-00	YX-380	0086-0029-01-99
YLa110	0190-0029-00-00	YX-500S (C)	0086-0029-01-99
YLa120	0345-0029-00-00	YX-500	0077-0029-02-99
YLa140	0346-0029-00-00	YX-700 (S)	0129-0029-00-99
		YX-700C	0281-0029-01-99
		YX-900	0237-0029-01-99
		YX-1100	0237-0029-01-99
		YX-1400	0322-0029-00-99
		YX-1900	0320-0029-00-99
		YX-2400	0320-0029-00-99
		YX-3000	0405-0029-00-99
		YX-4500	0722-0029-00-99

## YOKOTA torque measuring equipment

YOKOTA torque measuring equipment (YET-series) is especially designed to check and test the functioning and performance of impulse wrenches. All specified torque figures in this brochure are measured on a YOKOTA torque tester (YET series), with 0,63 MPa air pressure (dynamic). This is a static torque tester. Torque values may differ with other measuring equipment and/or joints (hard/soft).



For type	Range
YET-501C	5 - 50 Nm
YET-2001C	20 - 200 Nm
YET-5001C	100 - 500 Nm

## Service sets

You will need these service sets with spare parts if you are going to change the oil. For quick service we advise you to use a vacuum pump (YEVP-1\*) and oil tank (YEVP-1T\*)



### Please note!

Always use oil with the right specifications when changing oil. Only then you will have a optimal tool power and a minimum oil consumption. We recommend NOBP oil for the impulse unit.

### Service sets containing:

O-rings, back up rings and springs for impulse mechanisms for oilchange.

For type	Order number	For type	Order number	For type	Order number
E-M500	0377-0991-00-99	YBX-1	0158-0991-01-99	YLT120	0380-0991-01-99
E-M700	0377-0991-00-99	YBX-50	0158-0991-01-99	YLT140	0381-0991-01-99
E-M900	0368-0991-01-99	YBX-600T	0189-0991-00-99	YLT150	0382-0991-01-99
E-M1100	0378-0991-00-99	YBX-800T	0191-0991-00-99		

For type	Order number	For type	Order number	For type	Order number
TKa-60	0186-0991-00-99	YED-200	0409-0991-00-99	YLTX50	0389-0991-00-99
TKa-600	0186-0991-00-99	YED-240S	0411-0991-02-99	YLTX60	0390-0991-00-99
TKa-70	0186-0991-00-99			YLTX70	0391-0991-00-99
TKa-700	0186-0991-00-99	YEX-120	0089-0991-01-99	YLTX80	0392-0991-00-99
TKa-80	0193-0991-00-99	YEX-150	0089-0991-01-99	YLTX110	0395-0991-00-99
TKa-800	0193-0991-00-99	YEX-300S	0086-0991-01-99	YLTX120	0396-0991-00-99
TKa-90	0181-0991-00-99	YEX-500S	0077-0991-02-99	YLTX140	0398-0991-00-99
TKa-900	0181-0991-00-99	YEX-701	0143-0991-00-99	YLTX150	0399-0991-00-99
TKa-110	0187-0991-00-99	YEX-901	0237-0991-01-99		
TKa-1110	0187-0991-00-99	YEX-1400	0323-0991-00-99	YS-e600	0193-0991-00-99
TKa-120	0342-0991-00-99	YEX-1900	0320-0991-00-99	YS-e800	0193-0991-00-99
TKa-140	0341-0991-00-99	YEX-3000	0405-0991-00-99	YS-e900	0181-0991-00-99
TKa-1400	0341-0991-00-99			YS-e950	0181-0991-00-99

For type	Order number	For type	Order number	For type	Order number
TKa-150	0343-0991-00-99	YLa60	0199-0991-01-99	YX-80	0095-0029-00-99
TKa-1500	0343-0991-00-99	YLa70	0189-0991-00-99	YX-180	0089-0029-01-99
		YLa80	0191-0991-00-99	YX-280	0089-0029-01-99
		YLa90	0188-0991-00-99	YX-380	0086-0029-01-99
		YLa110	0190-0991-00-99	YX-500S (C)	0086-0029-01-99
		YLa120	0345-0991-00-99	YX-500	0077-0029-02-99
		YLa140	0346-0991-00-99	YX-700 (S)	0129-0029-00-99
				YX-700C	0281-0029-01-99
				YX-900	0237-0029-01-99
				YX-1100	0237-0029-01-99
				YX-1400	0322-0029-00-99
				YX-1900	0320-0029-00-99

# ACTION

## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES



### 3/8" Drive

#### SIZE 6-Point normal

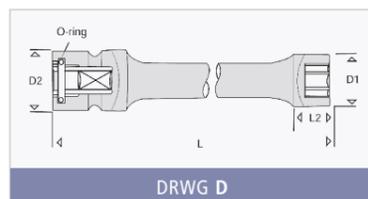
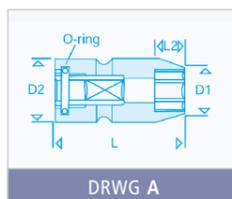
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO60910006	6	A	11	19	43	5
DO60910007	7	A	12	19	43	5
DO60910008	8	A	13	19	43	7
DO60910009	9	A	15	19	43	7
DO60910010	10	A	16	19	43	7
DO60910011	11	A	17,5	19	43	8
DO60910012	12	A	18,5	19	43	9
DO60910013	13	A	20	22	43	9
DO60910014	14	A	21	22	43	9
DO60910015	15	A	22	22	43	12
DO60910016	16	A	24	22	43	12
DO60910017	17	A	25	22	43	12
DO60910018	18	A	26	22	43	12
DO60910019	19	A	27	22	43	12
DO60910021	21	A	30	22	43	13

#### SIZE 6-Point normal

Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO6091A006	6	A	11	19	43	5
DO6091A007	7	A	12	19	43	5
DO6091A008	8	A	13	19	43	7
DO6091A009	9	A	15	19	43	7
DO6091A010	10	A	16	19	43	7
DO6091A011	11	A	17,5	19	43	8
DO6091A012	12	A	18,5	19	43	9
DO6091A013	13	A	20	22	43	9
DO6091A014	14	A	21	22	43	9
DO6091A015	15	A	22	22	43	12
DO6091A016	16	A	24	22	43	12
DO6091A017	17	A	25	22	43	12
DO6091A018	18	A	26	22	43	12
DO6091A019	19	A	27	22	43	12
DO6091A020	20	A	28	22	43	13
DO6091A021	21	A	30	22	43	13
DO6091A022	22	A	31	23	50	14
DO6091A023	23	A	32	23	50	14
DO6091A024	24	A	34	23	50	15
DO6091A025	25	A	35	23	50	15
DO6091A026	26	A	36	23	50	15
DO6091A027	27	A	38	23	50	15

#### SIZE 6-Point long

Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO60913006	6	D	11	19	100	4
DO60913008	8	D	13	19	100	8
DO60913010	10	D	16	19	100	8
DO60913012	12	D	18,5	19	100	9
DO60913013	13	D	20	22	100	9
DO60913014	14	D	21	22	100	9
DO60913015	15	D	22	22	100	11
DO60913016	16	D	24	22	100	11
DO60913017	17	D	25	22	100	11
DO60914006	6	D	11	19	150	4
DO60914008	8	D	13	19	150	8
DO60914010	10	D	16	19	150	8
DO60914012	12	D	18,5	19	150	9
DO60914013	13	D	19	22	150	9
DO60914014	14	D	20	22	150	9
DO60914015	15	D	22	22	150	11
DO60914016	16	D	24	22	150	11
DO60914017	17	D	25	22	150	11
DO60915006	6	D	11	19	200	4
DO60915008	8	D	13	19	200	8
DO60915010	10	D	16	19	200	8
DO60915012	12	D	18,5	19	200	9
DO60915013	13	D	20	22	200	9
DO60915014	14	D	21	22	200	9
DO60915015	15	D	22	22	200	11
DO60915016	16	D	22,5	22	200	11
DO60915017	17	D	24	22	200	11



# ACTION

## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES

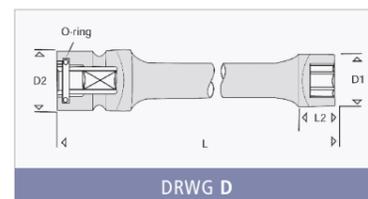
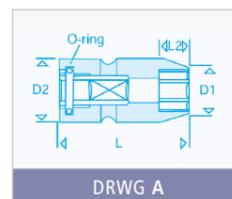


### 3/8" Drive

#### SIZE 6-Point long magnetic

Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO6091P006	6	D	11	19	100	3
DO6091P007	7	D	12	19	100	3
DO6091P008	8	D	13	19	100	4
DO6091P009	9	D	15	19	100	4
DO6091P010	10	D	16	19	100	4
DO6091P011	11	D	17,5	19	100	5
DO6091P012	12	D	18,5	19	100	5
DO6091P013	13	D	20	22	100	6
DO6091P014	14	D	21	22	100	6
DO6091P015	15	D	22	22	100	7
DO6091P016	16	D	24	22	100	7
DO6091P017	17	D	25	22	100	7
DO6091R006	6	D	11	19	150	3
DO6091R007	7	D	12	19	150	3
DO6091R008	8	D	13	19	150	4
DO6091R009	9	D	15	19	150	4
DO6091R010	10	D	16	19	150	4
DO6091R011	11	D	17,5	19	150	5
DO6091R012	12	D	18,5	19	150	5
DO6091R013	13	D	20	22	150	6
DO6091R014	14	D	21	22	150	6
DO6091R015	15	D	22	22	150	7
DO6091R016	16	D	24	22	150	7
DO6091R017	17	D	25	22	150	7

DO6091T007	7	D	12	19	200	3
DO6091T008	8	D	13	19	200	4
DO6091T009	9	D	15	19	200	4
DO6091T010	10	D	16	19	200	4
DO6091T011	11	D	17,5	19	200	5
DO6091T012	12	D	18,5	19	200	5
DO6091T013	13	D	20	22	200	6
DO6091T014	14	D	21	22	200	6
DO6091T015	15	D	22	22	200	7
DO6091T016	16	D	24	22	200	7
DO6091T017	17	D	25	22	200	7



#### SIZE 6-point deep magnetic

Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO6091Q010	10	A	16	19	100	5
DO6091Q012	12	A	18,5	19	100	6
DO6091Q013	13	A	20	22	100	6
DO6091Q014	14	A	21	22	100	6
DO6091Q016	16	A	24	22	100	7

#### SIZE Torx® internal

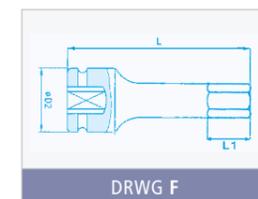
Type	A/F mm	DRWG	L1 mm	D2 mm	L mm	-
DO68811009	T9	F	2	22	75	-
DO68811010	T10	F	2,8	22	75	-
DO68811015	T15	F	2,8	22	75	-
DO68811020	T20	F	2,8	22	75	-
DO68811025	T25	F	3	22	75	-
DO68811027	T27	F	3	22	75	-
DO68811030	T30	F	3,8	22	75	-
DO68811040	T40	F	3,8	22	75	-
DO68811045	T45	F	4,3	22	75	-
DO68811047	T47	F	5	22	75	-
DO68811050	T50	F	5	22	75	-
DO68811055	T55	F	5,5	22	75	-

Torx® is a trademark of Textron.

#### SIZE Torx® external

Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
DO66910005	E5	A	8	19	43	4,5
DO66910006	E6	A	9	19	43	5
DO66910007	E7	A	9,5	19	43	6
DO66910008	E8	A	11	19	43	6,5
DO66910010	E10	A	13	19	43	7,5
DO66910011	E11	A	14	19	43	8
DO66910012	E12	A	15,5	19	43	8,5
DO66910014	E14	A	17,5	22	43	10
DO66910016	E16	A	18,5	22	43	11

Torx® is a trademark of Textron.



# ACTION

## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES



### 3/8" Drive

SIZE						
Torx® external						
Type	A/F	DRWG	D1 mm	D2 mm	L mm	L2 mm
DO66910005	E5	A	8	19	43	4,5
DO66910006	E6	A	9	19	43	5
DO66910007	E7	A	9,5	19	43	6
DO66910008	E8	A	11	19	43	6,5
DO66910010	E10	A	13	19	43	7,5
DO66910011	E11	A	14	19	43	8
DO66910012	E12	A	15,5	19	43	8,5
DO66910014	E14	A	17,5	22	43	10
DO66910016	E16	A	19,5	22	43	11

Torx® is a trademark of Textron.

SIZE						
Hex driver (Inbus)						
Type	A/F mm	DRWG	L1 mm	D2 mm	L mm	-
<b>Metrical</b>						
DO68916003	3	F	11	22	75	-
DO68916004	4	F	11	22	75	-
DO68916005	5	F	11	22	75	-
DO68916006	6	F	11	22	75	-
DO68916007	7	F	16	22	75	-
DO68916008	8	F	16	22	75	-
DO68916009	9	F	16	22	75	-
DO68916010	10	F	16	22	75	-
DO68916011	11	F	16	22	75	-
DO68916012	12	F	16	22	75	-
DO68916013	13	F	16	22	75	-
DO68916014	14	F	16	22	75	-
DO68916015	15	F	16	22	75	-
DO68916016	16	F	16	22	75	-

Stud Bolt Setters				
Type	Size	D1 mm	D2 mm	L mm
DO66A10062	M6 x 1	12,5	22	50
DO66A10083	M8 x 1,25	15	22	50
DO66A10104	M10 x 1,5	17	22	50

### 1/2" Drive

SIZE						
6-Point normal						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO60920012	12	A	20	25	52	12
DO60920013	13	A	21	25	52	12
DO60920014	14	A	22,5	25	52	12
DO60920015	15	A	23,5	30	52	12
DO60920016	16	A	25	30	52	12
DO60920017	17	A	26	30	52	12
DO60920018	18	A	27,5	30	52	13
DO60920019	19	A	28,5	30	52	13
DO60920021	21	A	31	30	52	14
DO60920022	22	A	32	30	52	14
DO60920023	23	A	34	30	52	14
DO60920024	24	A	35	30	52	15
DO60920025	25	A	36	30	57	15
DO60920027	27	A	38,5	30	57	17
DO60920030	30	A	42	30	57	18
DO60920032	32	A	44	30	62	20

SIZE						
6-Point long						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO60923010	10	D	17,5	25	100	12
DO60923012	12	D	20	25	100	12
DO60923013	13	D	21	25	100	12
DO60923014	14	D	22,5	25	100	12
DO60923015	15	D	23,5	30	100	12
DO60923017	17	D	26	30	100	13
DO60923019	19	D	28,5	30	100	13

DO60924010	10	D	17,5	25	150	12
DO60924012	12	D	20	25	150	12
DO60924013	13	D	21	25	150	12
DO60924014	14	D	22,5	25	150	12
DO60924015	15	D	23,5	30	150	12
DO60924017	17	D	26	30	150	13
DO60924019	19	D	28,5	30	150	13
<b>Metrical</b>						
DO60925010	10	D	17,5	25	200	12
DO60925012	12	D	20	25	200	12
DO60925013	13	D	21	25	200	12
DO60925014	14	D	22,5	25	200	12
DO60925015	15	D	23,5	30	200	12
DO60925017	17	D	26	30	200	13
DO60925019	19	D	28,5	30	200	13

# ACTION

## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES

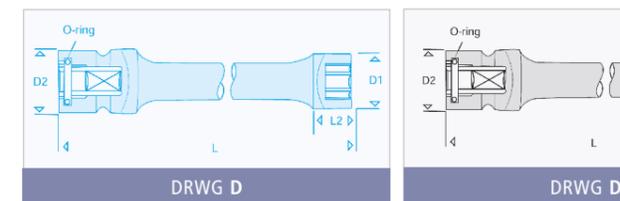
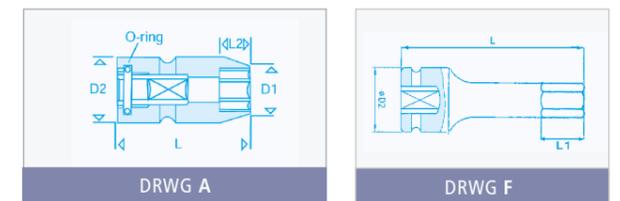


### 1/2" drive

SIZE						
6-Point long magnetic						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO6092P010	10	D	17,5	25	100	4
DO6092P011	11	D	18,5	25	100	5
DO6092P012	12	D	20	25	100	5
DO6092P013	13	D	21	25	100	6
DO6092P014	14	D	22,5	25	100	6
DO6092P015	15	D	23,5	30	100	7
DO6092P016	16	D	25	30	100	7
DO6092P017	17	D	26	30	100	7
DO6092P018	18	D	27,5	30	100	8
DO6092P019	19	D	28,5	30	100	8

DO6092R010	10	D	17,5	25	150	4
DO6092R011	11	D	18,5	25	150	5
DO6092R012	12	D	20	25	150	5
DO6092R013	13	D	21	25	150	6
DO6092R014	14	D	22,5	25	150	6
DO6092R015	15	D	23,5	30	150	7
DO6092R016	16	D	25	30	150	7
DO6092R017	17	D	26	30	150	7
DO6092R018	18	D	27,5	30	150	8
DO6092R019	19	D	28,5	30	150	8

DO6092T010	10	D	17,5	25	200	4
DO6092T011	11	D	18,5	25	200	5
DO6092T012	12	D	20	25	200	5
DO6092T013	13	D	21	25	200	6
DO6092T014	14	D	22,5	25	200	6
DO6092T015	15	D	23,5	30	200	7
DO6092T016	16	D	25	30	200	7
DO6092T017	17	D	26	30	200	7
DO6092T018	18	D	27,5	30	200	8
DO6092T019	19	D	28,5	30	200	8



SIZE						
6-Point normal magnetic						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO6092A006	6	A	13	25	52	5
DO6092A007	7	A	14	25	52	5
DO6092A008	8	A	15	25	52	7
DO6092A009	9	A	16	25	52	7
DO6092A010	10	A	17,5	25	52	8
DO6092A011	11	A	18,5	25	52	9
DO6092A012	12	A	20	25	52	12
DO6092A013	13	A	21	25	52	12
DO6092A014	14	A	22,5	25	52	12
DO6092A015	15	A	23,5	30	52	12
DO6092A016	16	A	25	30	52	12
DO6092A017	17	A	26	30	52	12
DO6092A018	18	A	27,5	30	52	12
DO6092A019	19	A	28,5	30	52	12
DO6092A020	20	B	30	30	52	12
DO6092A021	21	C	31	30	52	12
DO6092A022	22	C	32	30	52	12
DO6092A023	23	C	34	30	52	12
DO6092A024	24	C	35	30	52	12
DO6092A025	25	C	36	30	57	12
DO6092A026	26	C	38	30	57	12
DO6092A027	27	C	38,5	30	57	12

SIZE						
6-Point deep magnetic						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L1 mm
<b>Metrical</b>						
DO6092Q010	10	A	17,5	25	100	5
DO6092Q013	13	A	21	25	100	6
DO6092Q016	16	A	25	30	100	7
DO6092Q017	17	A	26	30	100	7
DO6092Q019	19	A	28,5	30	100	8

# ACTION

## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES



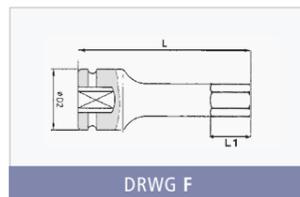
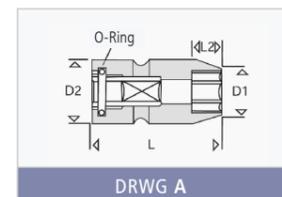
### 1/2" Drive

SIZE						
Torx® internal						
Type	A/F	DRWG	L1 mm	D2 mm	L mm	-
DO68821020	T20	F	2,8	25	75	-
DO68821025	T25	F	3	25	75	-
DO68821027	T27	F	3	25	75	-
DO68821030	T30	F	3,8	25	75	-
DO68821040	T40	F	3,8	25	75	-
DO68821045	T45	F	4,3	25	75	-
DO68821047	T47	F	5	25	75	-
DO68821050	T50	F	5	25	75	-
DO68821055	T55	F	5,5	25	75	-
DO68821060	T60	F	8	25	75	-
DO68821070	T70	F	9,4	25	75	-
DO68821080	T80	F	10,5	25	75	-
DO68821090	T90	F	11,8	25	75	-
DO68821100	T100	F	13,1	25	75	-

Torx® is a trademark of Textron.

SIZE						
Torx® external						
Type	A/F	DRWG	D1 mm	D2 mm	L mm	L2 mm
DO66920010	E10	A	14	25	52	7,5
DO66920011	E11	A	15	25	52	8
DO66920012	E12	A	16	25	52	8,5
DO66920014	E14	A	18	25	52	10
DO66920016	E16	A	20	25	52	11
DO66920018	E18	A	22	25	52	12,5
DO66920020	E20	A	25	30	52	14
DO66920022	E22	A	27	30	52	15
DO66920024	E24	A	29	30	52	16,5

Torx® is a trademark of Textron.



SIZE						
Hex driver (Inbus)						
Type	A/F mm	DRWG	L1 mm	D2 mm	L mm	-
<b>Metrical</b>						
DO68925003	3	F	11	25	75	-
DO68925004	4	F	11	25	75	-
DO68925005	5	F	15	25	75	-
DO68925006	6	F	15	25	75	-
DO68925007	7	F	20	25	75	-
DO68925008	8	F	25	25	75	-
DO68925009	9	F	25	25	75	-
DO68925010	10	F	25	25	75	-
DO68925011	11	F	25	25	75	-
DO68925012	12	F	25	25	75	-
DO68925013	13	F	25	25	75	-
DO68925014	14	F	25	25	75	-
DO68925015	15	F	25	25	75	-
DO68925016	16	F	25	25	75	-
DO68925017	17	F	25	25	75	-
DO68925018	18	F	25	25	75	-
DO68925019	19	F	25	25	75	-

Stud Bolt Setters				
Type	Size	D1 mm	D2 mm	L mm
DO66A21062	M6 x 1	13	25	75
DO66A21083	M8 x 1,25	15	25	75
DO66A21104	M10 x 1,5	17	25	75
DO66A21125	M12 x 1,75	19	25	75
DO66A21146	M14 x 2	22	25	75
DO66A21166	M16 x 2	27	30	75



# ACTION

## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES



### 3/4" Drive

SIZE						
6-Point normal						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO60940017	17	A	30	44	65	12
DO60940018	18	A	31	44	65	13
DO60940019	19	A	32	44	65	13
DO60940021	21	A	35	44	68	15
DO60940022	22	A	37	44	68	15
DO60940023	23	A	38	44	68	15
DO60940024	24	A	39	44	68	15
DO60940026	26	A	42	44	69	16
DO60940027	27	A	43	44	69	17
DO60940028	28	A	44	44	71	18
DO60940029	29	A	46	44	71	18
DO60940030	30	A	47	44	71	18
DO60940032	32	A	49	44	72	20
DO60940033	33	A	51	44	73	21
DO60940034	34	A	52	44	73	22
DO60940035	35	A	53	44	73	22
DO60940036	36	A	54	44	73	23
DO60940038	38	A	57	44	75	24
DO60940041	41	A	60	44	75	27
DO60940046	46	A	66,5	44	80	30
DO60940050	50	A	71	54	80	31

SIZE						
6-Point magnetic						
Type	A/F mm	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO6094A013	13	A	24,5	44	65	12
DO6094A014	14	A	25,5	44	65	12
DO6094A015	15	A	27	44	65	12
DO6094A016	16	A	28	44	65	12
DO6094A017	17	A	30	44	65	12
DO6094A018	18	A	31	44	65	13
DO6094A019	19	A	32	44	65	13
DO6094A020	20	A	34	44	68	15
DO6094A021	21	A	35	44	68	15
DO6094A022	22	A	37	44	68	15
DO6094A023	23	A	38	44	68	15
DO6094A024	24	A	39	44	68	16
DO6094A025	25	A	41	44	69	16
DO6094A026	26	A	42	44	69	16
DO6094A027	27	A	43	44	69	17

SIZE						
Hex driver 6-point (Inbus)						
Type	A/F mm	DRWG	D2 mm	L mm	L2 mm	-
<b>Metrical</b>						
DO68945010	10	F	44	100	20	-
DO68945012	12	F	44	100	20	-
DO68945014	14	F	44	100	20	-
DO68945016	16	F	44	100	20	-
DO68945017	17	F	44	100	20	-
DO68945019	19	F	44	100	20	-
DO68945022	22	F	44	100	20	-
DO68945024	24	F	44	100	20	-
DO68945027	27	F	44	100	20	-
DO68945030	30	F	44	100	20	-
DO68945032	32	F	44	100	20	-
DO68945033	33	F	44	100	20	-
DO68945036	36	F	44	100	20	-
DO68945038	38	F	44	100	20	-

SIZE						
Torx® external						
Type	A/F	DRWG	D1 mm	D2 mm	L mm	L2 mm
<b>Metrical</b>						
DO66940018	E18	A	26	44	65	12,5
DO66940020	E20	A	28	44	65	14
DO66940022	E22	A	31	44	65	15
DO66940024	E24	A	33	44	65	16,5

Torx® is a trademark of Textron.

## ACTION BROCHURE

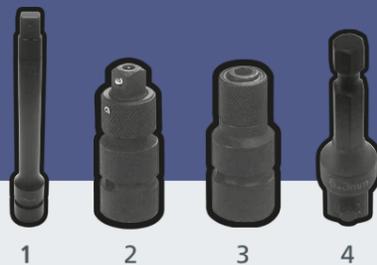
IMPACT SOCKETS FOR OPTIMAL PERFORMANCE AND SECURITY



Other versions of impact sockets are available (magnetic, thinwalled, other sizes). Ask for our special socket-catalogue.

# ACTION

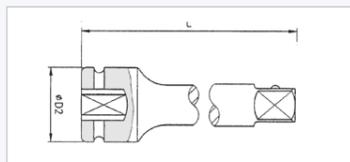
## SLEEVE DRIVE SOCKETS FOR IMPULSE WRENCHES



### 3/4" Drive

#### Extensions

Type	Square-drive	L mm	D2 mm
<b>Metrical</b>			
DO64614075	3/8"	75	22
DO64614125	3/8"	125	22
DO64614250	3/8"	250	22
DO64624075	1/2"	75	25
DO64624125	1/2"	125	25
DO64624175	1/2"	175	25
DO64624250	1/2"	250	25
DO64644175	3/4"	175	44
DO64644250	3/4"	250	44
DO64644330	3/4"	330	44



### ACTION sleeve drive power sockets guarantee reduced vibration!!

ACTION sleeve drive power sockets are supported with an O-ring on the axle of the impulse wrench, giving a tighter fit on the tool.

#### Sleeve drive power sockets guarantee

- Torque improvement
- Reduces vibration
- Reduced noise level
- Reduced wear



### Sleeve Drive adapters

#### Quickchange adaptors

Type	Drive-in	Drive-out	D2 mm	L mm
<b>Metrical</b>				
DO69151116	3/8"	1/2"	20	80
DO69152112	1/2"	3/8"	25	75
DO69154116	3/4"	1/2"	44	90
DO69151112	3/8"	3/8"	19	75
DO69151212	3/8"	3/8"	19	100
DO69152216	1/2"	1/2"	25	100
DO69154324	3/4"	3/4"	44	125

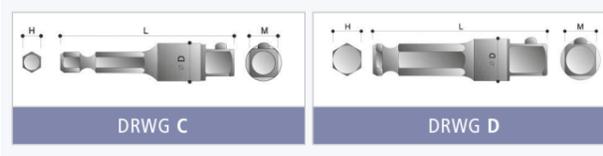
#### Sleeve Drive bitholders

Type	Square-drive	Hex chuck	D2 mm	L mm
<b>Metrical</b>				
DO69111E08	3/8"	1/4"	52	22
DO69111E14	3/8"	7/16"	62	22
DO69112E08	1/2"	1/4"	60	25
DO69112E14	1/2"	7/16"	70	25
DO69114E14	3/4"	7/16"	80	44

### Impact adaptors

#### Impact adaptors

Type	Square-drive	Hex	DRWG	L mm	D mm
<b>Metrical</b>					
DO69306050	1/4"	1/4"	C	50	9
DO69306075	1/4"	1/4"	C	75	9
DO69306100	1/4"	1/4"	C	100	9
DO69306150	1/4"	1/4"	C	150	9
DO69316050	3/8"	1/4"	C	50	13
DO69316075	3/8"	1/4"	C	75	13
DO69316100	3/8"	1/4"	C	100	13
DO69318075	3/8"	7/16"	D	75	13
DO6932E050	1/2"	1/4"	C	50	17
DO69328075	1/2"	7/16"	D	75	17



# ACTION

## IMPACT SOCKETS FOR SCREWDRIVERS



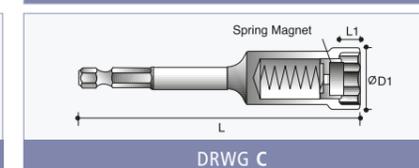
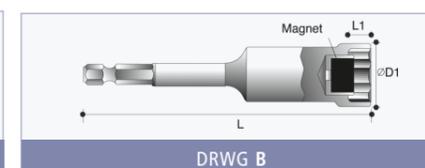
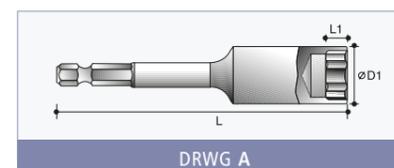
### 1/4" Drive

#### 6-Point

Type	A/F mm	DRWG	D1 mm	L mm	L1 mm
<b>Metrical</b>					
DO697B0S04	4	A	8	55	4,5
DO697B0S06	6	A	10	55	4,5
DO697B0T06	6	A	10	75	4,5
DO697B0T07	7	A	11	75	4,5
DO697B0T08	8	A	12	75	4,5
DO697B0T10	10	A	14	75	5,5
DO697B0T12	12	A	17	75	5,5
DO697B0T13	13	A	18	75	5,5
DO697B0T14	14	A	19	75	5,5
DO697B0W12	12	A	17	200	5,5
DO697B0W14	14	A	19	200	5,5

#### 6-Point magnetic

Type	A/F mm	DRWG	D1 mm	L mm	L1 mm
<b>Metrical</b>					
DO697B0M06	6	B	10	55	4,5
DO697B0M07	7	B	11	55	4,5
DO697B0M08	8	B	12	55	4,5
DO697B0M10	10	B	14	55	5,5
DO697B0M11	11	B	16	55	5,5
DO697B0M12	12	B	17	55	5,5
DO697B0M13	13	B	18	55	5,5
DO697B0M14	14	B	19	55	5,5
DO697B0N10	10	B	14	75	5,5
DO697B0N12	12	B	17	75	5,5
DO697B0P06	6	B	10	100	4,5
DO697B0P07	7	B	11	100	4,5
DO697B0P08	8	B	12	100	4,5
DO697B0P10	10	B	14	100	5,5
DO697B0P12	12	B	17	100	5,5
DO697B0P13	13	B	18	100	5,5
DO697B0P14	14	B	19	100	5,5
DO697B0P17	17	B	23	100	5,5
DO697B0Q10	10	B	14	150	5,5
DO697B0R10	10	B	14	200	5,5

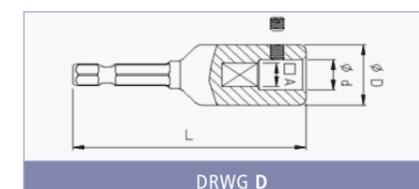


#### 6-Point deep magnetic

Type	A mm	DRWG	D1 mm	L mm	L1 mm
<b>Metrical</b>					
DO697B6006	6	C	10	75	4,5
DO697B7006	6	C	10	100	4,5
DO697B7008	8	C	12	100	4,5
DO697B7010	10	C	14	100	5,5
DO697B7012	12	C	17	100	5,5
DO697B7013	13	C	18	100	5,5
DO697B7014	14	C	19	100	5,5
DO697B8006	6	C	10	150	4,5
DO697B8008	8	C	12	150	4,5
DO697B8010	10	C	14	150	5,5
DO697B8012	12	C	17	150	5,5
DO697B8013	13	C	18	150	5,5
DO697B8014	14	C	19	150	5,5
DO697B9006	6	C	10	200	4,5
DO697B9008	8	C	12	200	4,5
DO697B9010	10	C	14	200	5,5
DO697B9012	12	C	17	200	5,5
DO697B9013	13	C	18	200	5,5
DO697B9014	14	C	19	200	5,5

#### Tap holding sockets

Type	A mm	DRWG	Ø d mm	Ø D mm	L mm
<b>Metrical</b>					
DO63A65001	3,4	D	4,5	14	55
DO63A65002	4,9	D	6	15	55
DO63A65003	5,5	D	7	16	55
DO63A65004	6,2	D	8	17	60
DO63A65005	7	D	9	18	70
DO63A65006	8	D	10	19	70
DO63A65007	9	D	11	20	70
DO63A65008	9	D	12	21	70
DO63A65009	11	D	14	23	75



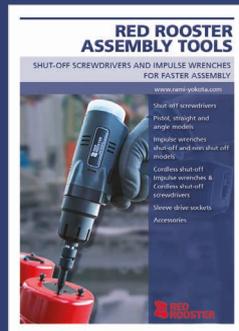
# OTHER BROCHURES OF RAMI YOKOTA BV



## AIR TOOLS

Product range TOKU, YOKOTA, RED ROOSTER, ACTION & SMC

**Content:**  
 Impact wrenches, Impulse wrenches, Ratchet wrenches, Impact sockets, Screwdrivers, Drills, Grinders & sanders, Hammers, Needlescalers, Saws, Pumps, Air chain hoists, Spring balancers, Air treatment equipment.



## RED ROOSTER ASSEMBLY TOOLS

Shut-off screwdrivers and impulse wrenches for faster assembly

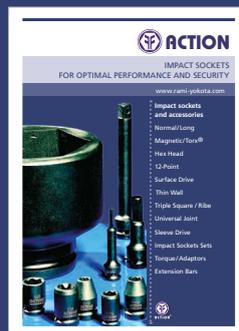
**Content:**  
 Shut-off screwdrivers & Impulse wrenches (shut-off and non shut-off models), Cordless shut-off screwdrivers & Cordless shut-off impulse wrenches, Sleeve drive sockets & Accessories.



## RED ROOSTER AIR CHAIN HOISTS

Air Chain Hoists 125 kg - 100 tonnes

**Content:**  
 Air Chain Hoists 0,125 /100 tonnes, Compact hoists, Mini hoists, Air chain hoists, Trolleys, Explosion proof, Accessories.



## ACTION BROCHURE

Impact sockets for optimal performance and security

**Content:**  
 Normal/Long, Magnetic/Torx®, Hex Head/12-Point, Surface Drive/Thin wall, Universal joints, Sleeve drive, Impact Socket Sets, Torque/Adaptors, Extension Bars, etc.