

BEST SELECTION CATALOGUE

KUKEN

KUKEN PRODUCTS for Assembly



INDUSTRIAL TOOLS

Main Features

Extremely accurate (5%)

Automatically stops in case it detects the unusual troque rising or the sensor failure.

Visualize the torque

Enables to see the torque rising while operation.

2 Speed Rotation

High speed rotation until seating and low speed to complete the fastening.

Easy to change Pre-Set torque

Enables to change torques at one touch button.

Low vibration and low noise level

PTS-450EX
Noise Level : 78db (A) Vibration Level : 0.1m/s^2

Data Transmission (option)

PTS-COM system (Direct Data Transferring)
PTS-LOG system (Memory Cartridge)

Easy Operation

After fastening the screw, the reaction arm slowly rotates reverse to take the tool easily from the application.



PTS-LOG MODEL









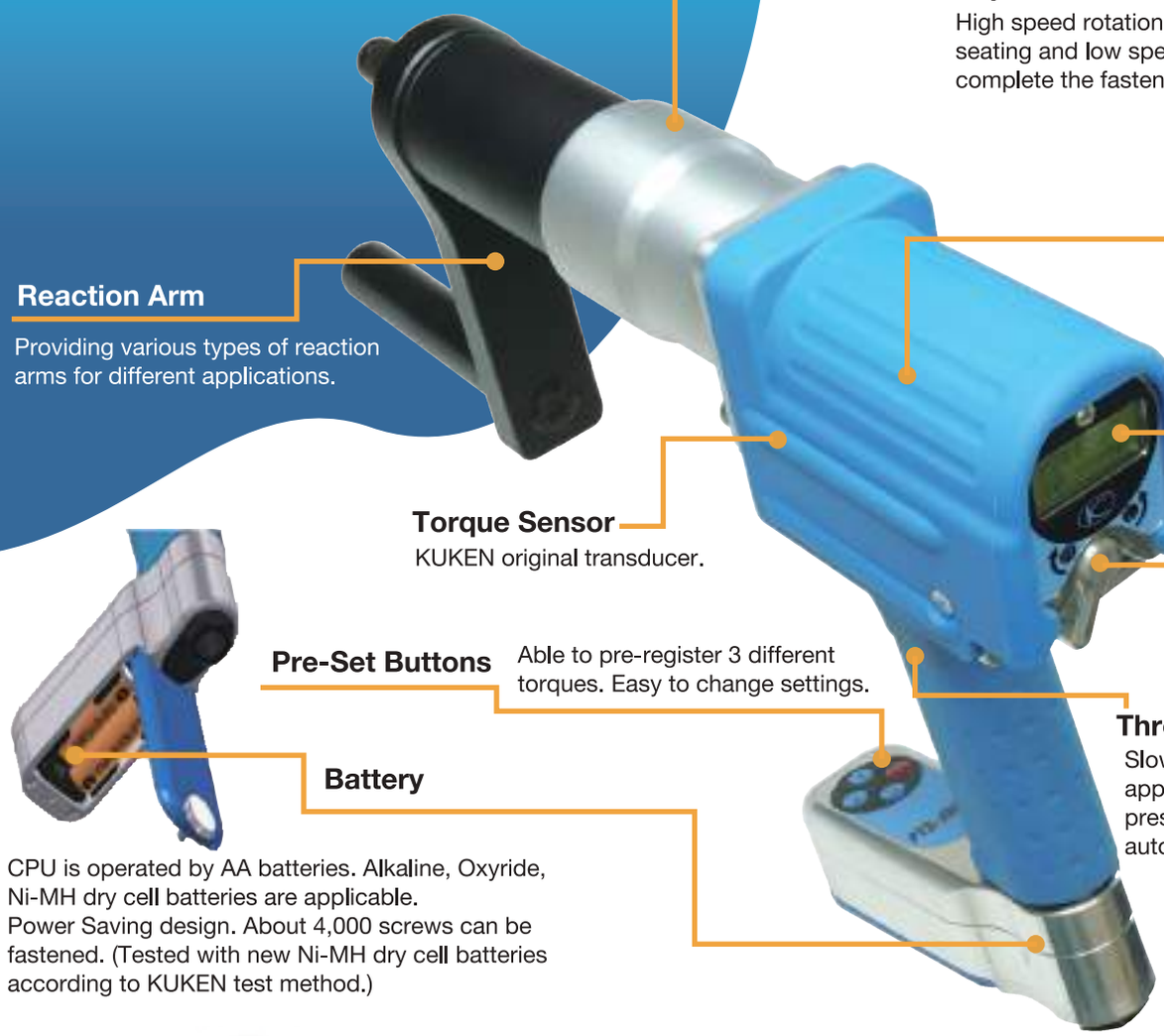




PTS

Portable Transducerized Pneumatic Nut-Runner

Series



2 Speed Rotation
High speed rotation until seating and low speed to complete the fastening.

Protector
Protect the main unit and the CPU.

Reaction Arm
Providing various types of reaction arms for different applications.

Control Panel

Torque Sensor
KUKEN original transducer.

Reverse Lever

Pre-Set Buttons
Able to pre-register 3 different torques. Easy to change settings.

Throttle Lever
Slow starting for sockets to apply a screw easily. Once press the lever, CPU turns on automatically.

Battery

- CPU is operated by AA batteries. Alkaline, Oxyride, Ni-MH dry cell batteries are applicable.
- Power Saving design. About 4,000 screws can be fastened. (Tested with new Ni-MH dry cell batteries according to KUKEN test method.)

PTS *EX Series* *1/2" SQ. DR. 20Nm-150Nm*



PTS-50EX



PTS-150EX



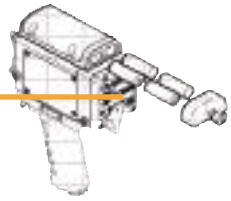
PTS-150EX-L

Specification / Model	Drive Size		Torque Range	Length		Weight		Free Speed	Battery (AA)	Noise Level	Vibration Level	Air Consumption	
	in.	mm	Nm	in.	mm	lbs.	kg	r.p.m.	pcs	dB(A)	m/s^2	c.f.m	m^3/min (Normal)
PTS-50EX	1/2	12.7	20-50Nm (0.1 Nm by step)	10-1/8	257.0	5.1	2.3	400	2	78	0.1	8.1	0.23
PTS-150EX	1/2	12.7	50-150Nm (1 Nm by step)	10-15/16	277.0	5.5	2.5	120	2	78	0.1	8.1	0.23
PTS-150EX-L	1/2	12.7	50-150Nm (1 Nm by step)	12-1/2	317.0	5.9	2.7	120	2	78	0.1	8.1	0.23

*Performance figures are at 0.62MPa(Pe)(90P.S.I.)air pressure.
*Length and weight measurements are without sockets and reaction force absorbers.

2 Speed Rotation
High speed rotation until seating and low speed to complete the fastening.

Battery
CPU is operated by AA batteries.
Alkaline(recommended), Oxyride, Ni-MH dry cell batteries are applicable.





Control Panel
To see the torque and to set the torque.



Torque Sensor
KUKEN original transducer.

Reaction Arm
Providing various types of reaction arms for different applications.

Throttle Lever
Slow starting for sockets to apply ascrew easily.
Once press the lever CPU turns on automatically.

Reverse Lever
To switch the rotation direction
(Right / Left) (R) / (L)

PTS-450EX PTS-600EX



PTS-800EX





PTS-450EX-L PTS-600EX-L



PTS-800EX-L

PTS

EX Series *3/4" SQ. DR. 1"SQ. DR. 140Nm-1000Nm*

Specification / Model	Drive Size		Torque Range	Length		Weight		Free Speed	Battery (AA)	Noise Level	Vibration Level	Air Consumption	
	in.	mm	Nm	in.	mm	lbs.	kg	r.p.m.	pcs	dB(A)	m/s^2	c.f.m	m^3/min (Normal)
PTS-450EX	3/4	19.0	140-450Nm (1Nm by Step)	13-15/16	354.0	11.7	5.3	100	4	78	0.1	13.4	0.38
PTS-450EX-L	3/4	19.0	140-450Nm (1Nm by Step)	17-7/8	454.0	13.4	6.1	100	4	78	0.1	13.4	0.38
PTS-600EX	3/4	19.0	140-600Nm (1Nm by Step)	13-15/16	354.0	11.7	5.3	100	4	78	0.1	13.4	0.38
PTS-600EX-L	3/4	19.0	140-600Nm (1Nm by Step)	17-7/8	454.0	13.4	6.1	100	4	78	0.1	13.4	0.38
PTS-800EX	1	25.4	400-800Nm (1Nm by Step)	15-15/16	404.0	14.1	6.4	90	4	78	0.2	13.4	0.38
PTS-800EX-L	1	25.4	400-800Nm (1Nm by Step)	18-11/16	474.0	15.2	6.9	90	4	78	0.2	13.4	0.38
PTS-1000EX	1	25.4	400-1000Nm (1Nm by Step)	15-7/16	392.0	16.5	7.5	70	4	78	0.2	13.4	0.38

*Performance figures are at 0.62MPa(Pe)(90P.S.I.)air pressure.
*Length and weight measurements are without sockets and reaction force absorbers.

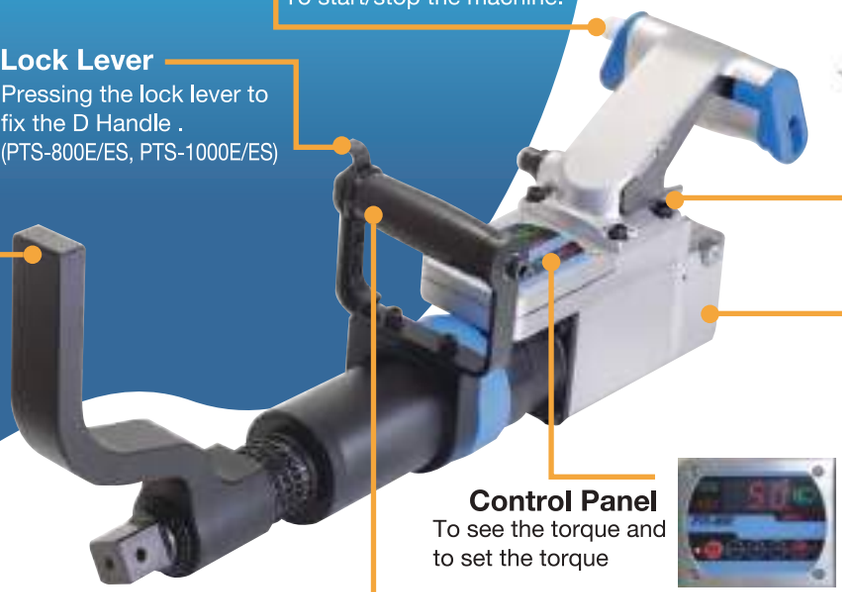
Throttle Button
To start/stop the machine.

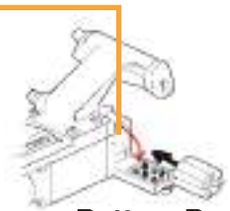
Lock Lever
Pressing the lock lever to fix the D Handle .
(PTS-800E/ES, PTS-1000E/ES)



Reverse Lever
To swiches the rotation direction.
(Right / Left) (R) / (L)

Reaction Arm
Providing various types of reaction arms for different application.





Control Panel
To see the torque and to set the torque

Battery Box
AA batteries to operate the controller unit.

D Handle
The D Handle rotates freely.

PTS E or ES Series

1" SQ. DR. & 1-1/2" SQ. DR. 400Nm-5000Nm



PTS-800ES



PTS-800E



PTS-1000E



PTS-1000ES



PTS-3000ES



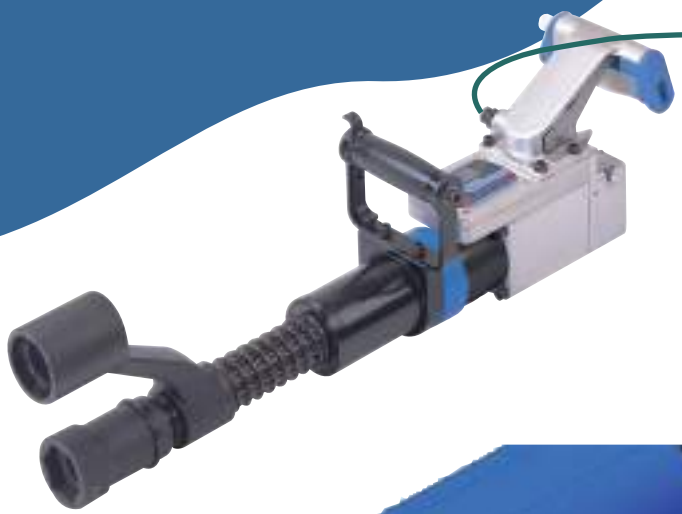
PTS-5000ES

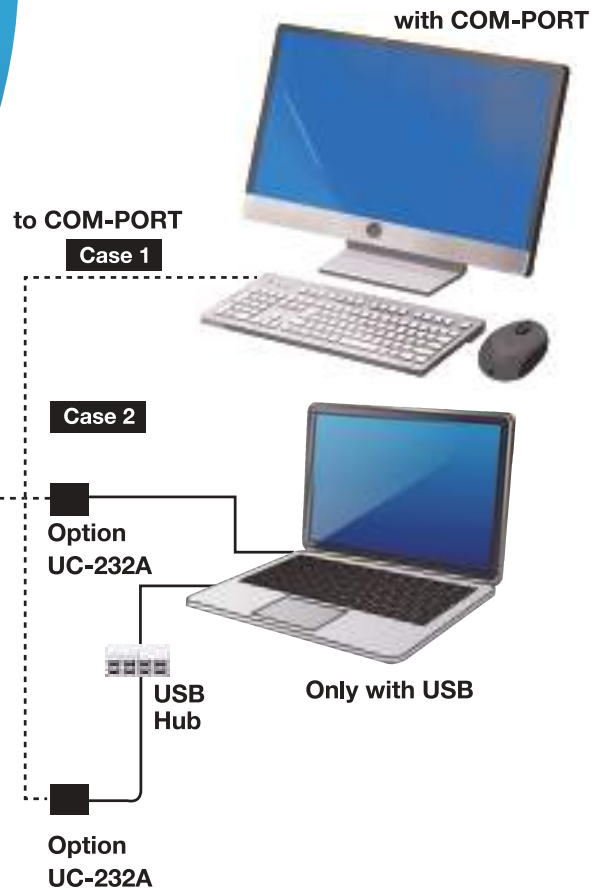
Specification / Model	Drive Size		Torque Range	Length		Weight		Free Speed	Battery (AA)	Noise Level	Vibration Level	Air Consumption	
	in.	mm	Nm	in.	mm	lbs.	kg	r.p.m.	pcs	dB(A)	m/s^2	c.f.m	m^3/min (Normal)
PTS-800ES	1	25.4	400-800Nm (1Nm by Step)	20-5/8	523.0	22.0	10.0	125	6	78	0.2	19.8	0.56
PTS-800E	1	25.4	400-800Nm (10Nm by Step)	25-7/16	646.0	26.0	11.8	125	6	78	0.2	19.8	0.56
PTS-1000ES	1	25.4	400-1000Nm (10Nm by Step)	19-3/16	486.0	24.4	11.1	135	6	84	0.4	21.2	0.6
PTS-1000E	1	25.4	400-1000Nm (10Nm by Step)	28-7/16	722.0	33.0	15.0	135	6	84	0.4	21.2	0.6
PTS-3000ES	1-1/2	38.0	1000-3000Nm (10Nm by Step)	19-5/8	497.0	32.8	14.9	70	6	81	0.9	20.1	0.57
PTS-5000ES	1-1/2	38.0	2000-5000Nm (10Nm by Step)	21-3/16	538.0	45.3	20.6	60	6	80	0.2	20.1	0.57

*Performance figures are at 0.62MPa(Pe)(90P.S.I.)air pressure.
*Length and weight measurements are without sockets and reaction force absorbers.

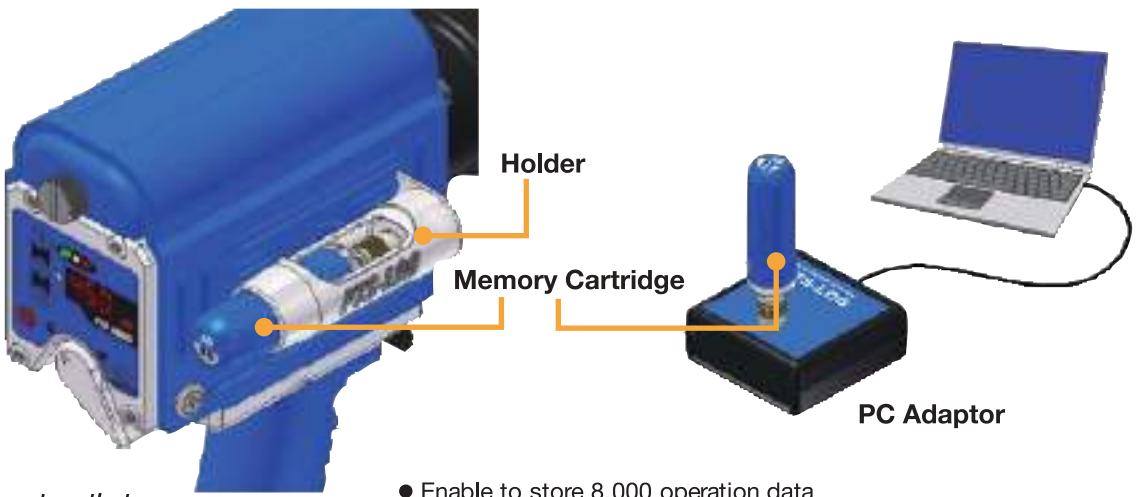
PTS-COM

PTS-COM is the application software that Results, Data, and Operating Time can be saved in computer files by connecting PTS and a computer. At the same time, fastening results and data can be seen in real time on the computer screen.





PTS-LOG



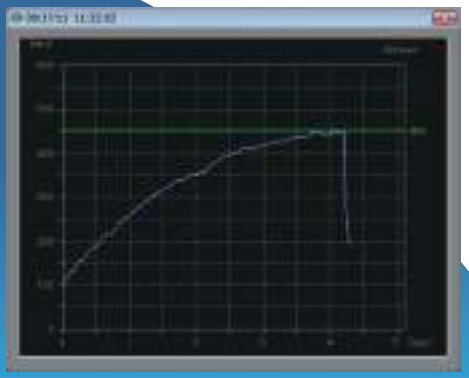
[PTS-LOG] is the data logger system that fastening results are saved in the memory cartridge. It ensures to record the fastening results without being limited by the cable length.

- Enable to store 8,000 operation data.
- Built-in internal clock.
  It enables to store fastening data along with operation date and time.

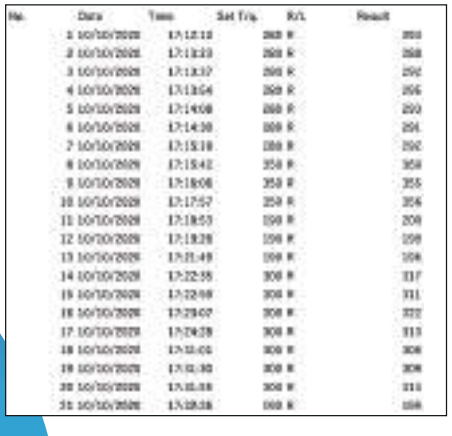
Fastening History



Torque Chart



The date transmitted from PTS can be saved in CSV file.
CSV file can be converted to EXCEL file.



KUKEN PTS LIST

Model	Torque Range (Nm)	Specification (without socket & reaction arm)	Description	Data Savings
PTS-50EX	20-50 (0.1 Nm by Step)	257 mm 2.3 kg 400 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-150EX	50 - 150 (1 Nm by Step)	277 mm 2.5 kg 120 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-150EX-L	50 - 150 (1 Nm by Step)	317 mm 2.7 kg 120 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-450EX	140 - 450 (1 Nm by Step)	354 mm 5.3 kg 100 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-450EX-L	140 - 450 (1 Nm by Step)	454 mm 6.1 kg 100 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-600EX	140 - 600 (1 Nm by Step)	354 mm 5.3 kg 100 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-600EX-L	140 - 600 (1 Nm by Step)	454 mm 6.1 kg 100 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-800EX	400 - 800 (1 Nm by Step)	404 mm 6.4 kg 90 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-800EX-L	400 - 800 (1 Nm by Step)	474 mm 6.9 kg 90 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-800ES	400 - 800 (1 Nm by Step)	523 mm 10.0 kg 125 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-800E Fastening only	400 - 800 (10 Nm by Step)	646 mm 11.8 kg 125 r.p.m.	Standard Model (Only 1 torque setting)	N / A
			Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-1000EX	400 - 1000 (10 Nm by Step)	392 mm 7.5 kg 70 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-1000ES	400 - 1000 (10 Nm by Step)	486 mm 11.1 kg 135 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-1000E	400 - 1000 (10 Nm by Step)	722 mm 15.0 kg 135 r.p.m.	Standard Model (Only 1 torque setting)	N / A
			Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-3000ES	1000 - 3000 (10 Nm by Step)	497 mm 14.9 kg 70 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory
PTS-5000ES	2000 - 5000 (10 Nm by Step)	538 mm 20.6 kg 60 r.p.m.	Standard Model	N / A
			PTS-COM Model (with software)	Cable
			PTS-LOG Model (with software)	Memory

KNR

High-Speed Pneumatic Nut-Runner Series (Stall Type)

KNR-1000X

Gear Box
Extremely low vibration & low noise.

2 Speed Rotation
High speed rotation until seating and low speed to complete the fastening.

High Speed Motor



Reverse Lever

Throttle Lever

Light Weight Design

Protector

Reaction Arm
Providing various types of reaction arms for different applications.

Ergonomic and comfortable operation. Low running cost.



KNR-800X



KNR-500X

FRL unit



KUKEN Original Filter, Regulator & Lubricator Unit.

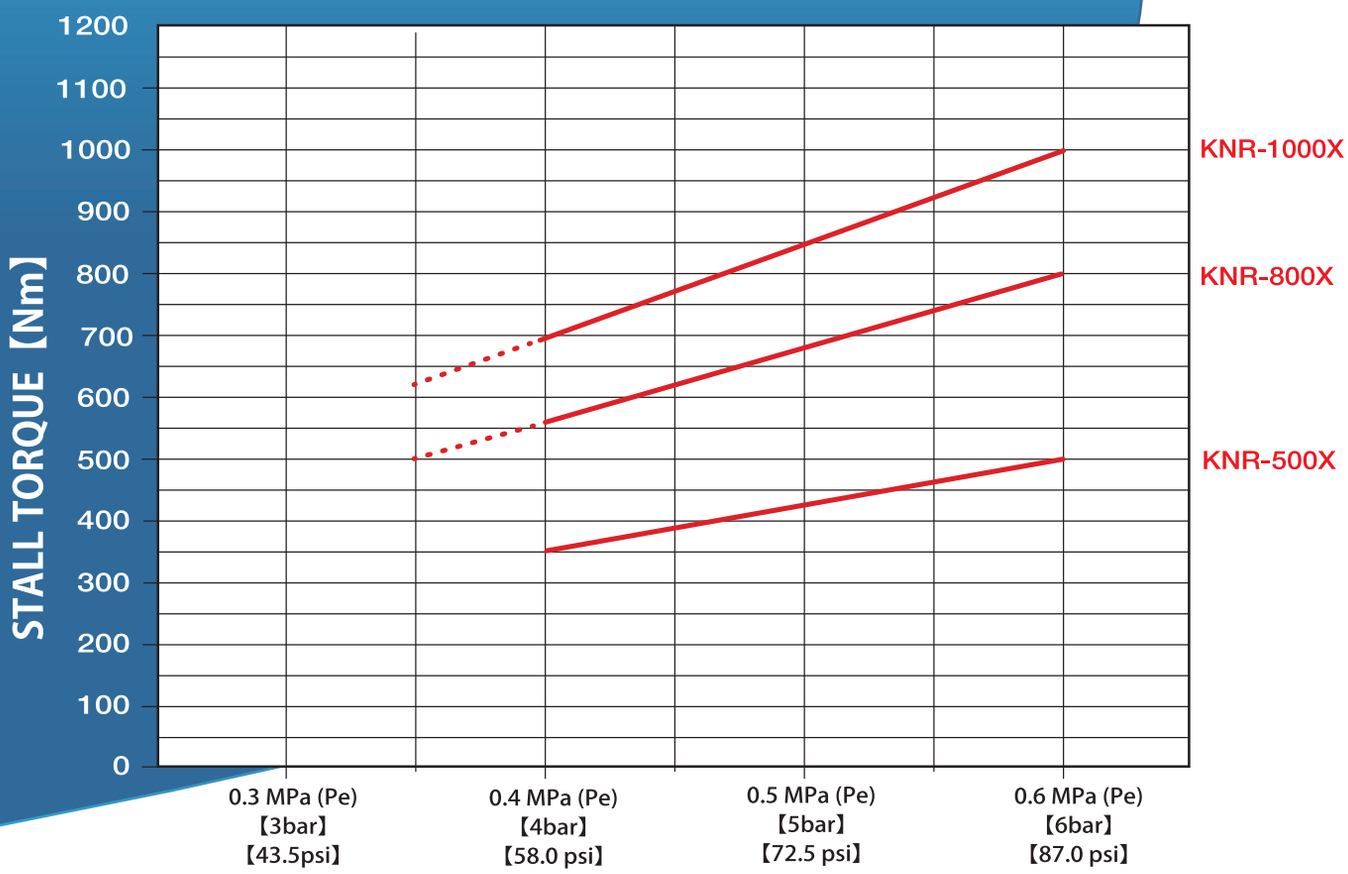
FRL-15

Length	1-7/16	36.0 mm
Height	5-15/16	150.0 mm
Width	11-13/16	300.0 mm
Weight	12.1 lbs	5.5kg

KNR

High-Speed Pneumatic Nut-Runner Series (Stall Type)

TORQUE CHART



Air Pressure at load

Hose size : φ12×3m

Using KUKEN KFR-15 for the air pressure adjustment.

KNR Series Dimensions

KNR-1000X



KNR-800X



KNR-500X

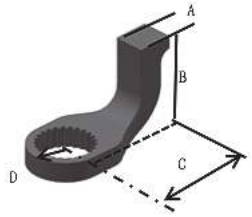
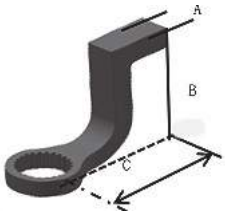
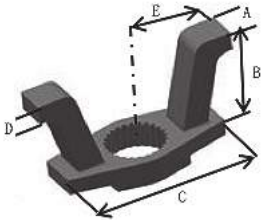
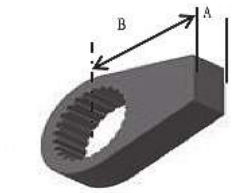
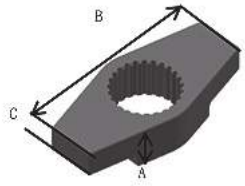


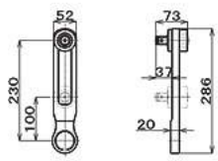
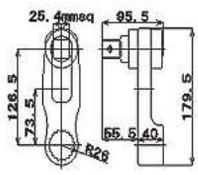
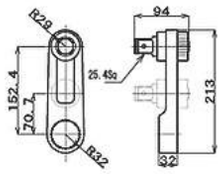
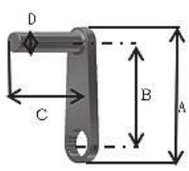
Specification / Model	Drive Size		Torque Range		Free Speed	Reduce the Speed at		Weight		Length		Height		Noise Level	Vibration Level	Air Consumption	
	in.	mm	Nm	ft. lb.	r.p.m.	Nm	ft.lb.	lbs.	kg	in.	mm	in.	mm	dB(A)	m/s²	c.f.m	m³/min (Normal)
KNR-500X	3/4	19.0	350-500	260-370	330-370	13.0	9.0	10.6	4.8	12-13/16	324.0	8-4/16	209.0	90.0	0.3	25.1	0.71
KNR-800X	1	25.4	580-800	430-590	200-240	15.0	11.0	14.3	6.5	15-3/16	385.0	8-15/16	227.0	84.0	0.2	26.1	0.74
KNR-1000X	1	25.4	680-1,000	500-740	150-190	17.0	12.0	16.7	7.6	14-11/16	372.0	9-1/16	230.0	86.0	0.2	31.4	0.89

*Performance figures are at 0.62MPa(Pe)(90P.S.I.)air pressure.
*Length and weight measurements are without sockets and reaction force absorbers.

Accessories

STANDARD REACTION ARM

Standard	57045F178		57080F308		57100F368	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
	A	25.4 mm	A	25.4 mm	A	25.4 mm
	B	67.0 mm	B	78.0 mm	B	76.0 mm
	C	92.0 mm	C	126.0 mm	C	111.0 mm
	D	R30	D	R30	D	R34
	Weight	0.6 kg	Weight	1.0 kg	Weight	1.4 kg
Deep Socket	57045F188		57080F318		57100F378	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
	A	25.4 mm	A	26.0 mm	A	26.0 mm
	B	112.0 mm	B	123.0 mm	B	121.0 mm
	C	127.0 mm	C	141.0 mm	C	141.0 mm
	Weight	1.2 kg	Weight	1.9 kg	Weight	1.8 kg
Double Ended Arm	57045F198		57080F328		57100F388	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
	A	25.4 mm	A	26.0 mm	A	26.0 mm
	B	60.0 mm	B	79.0 mm	B	79.0 mm
	C	126.5 mm	C	186.5 mm	C	186.5 mm
	D	15.0 mm	D	20.0 mm	D	20.0 mm
	E	78.0 mm	E	147.5 mm	E	147.5 mm
	Weight	1.1 kg	Weight	2.4 kg	Weight	2.4 kg
Blank	57045F208		57080F338		57100F398	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
	A	20.0 mm	A	16.0 mm	A	16.0 mm
	B	63.5 mm	B	74.0 mm	B	74.0 mm
	Weight	0.6 kg	Weight	0.6 kg	Weight	0.6 kg
Double Ended Blank	57045F218		57080F348		57100F408	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
	A	20.0 mm	A	30.0 mm	A	32.0 mm
	B	126.5 mm	B	186.5 mm	B	186.5 mm
	C	13.0 mm	C	16.0 mm	C	16.0 mm
	Weight	0.6 kg	Weight	1.2 kg	Weight	1.2 kg

Slide Reaction Arm	57045F09A		57080F35A		57100F33A	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
						
	Weight	1.6 kg	Weight	1.8 kg	Weight	2.1 kg
Bar Type	57045F228		57080F368		57100F418	
	PTS-450EX KNR-500X		PTS-800EX KNR-800X		PTS-1000EX KNR-1000X	
	A	201.5 mm	A	199.5 mm	A	204.5 mm
	B	150.0 mm	B	150.0 mm	B	150.0 mm
	C	140.0 mm	C	130.0 mm	C	130.0 mm
	D	Φ30	D	Φ30	D	Φ30
	Weight	2.1 kg	Weight	2.7 kg	Weight	2.8 kg

Reaction arms to suit specfic applications can be supplied.
Please contact KUKEN Japan or a KUKEN distributor for details.

Custom Made

Nose Extension



Gear Attachment



Twin Shank





ALL JAPAN MADE

CERTIFIED LR ISO 9001

Distributor :

Product improvement is continuing. Designs and specifications are subject to change without prior notice or obligation.

KUKEN CO.,LTD.
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