

KING DICK Tools are available from: **MARYLAND METRICS**



TORQUE

TORQUE

5



**KING
DICK**
TOOLS

TORQUE

KING DICK torque equipment is reliable, accurate and made to cope with industry's demanding requirements.

Guaranteed precise to within 4%, durability and consistency is paramount within these designs. User friendly, these wrenches feature clear scale markings and easy to set operations with secure locking mechanisms.

The click type wrenches enable progressive and exact torque setting, achieved with a notable sound and feel for operator comfort and precision.



KING DICK torque wrenches are fully repairable and are supplied with a twelve month warranty.

KING

DICK

PROFESSIONAL TORQUE WRENCHES

TORQUE



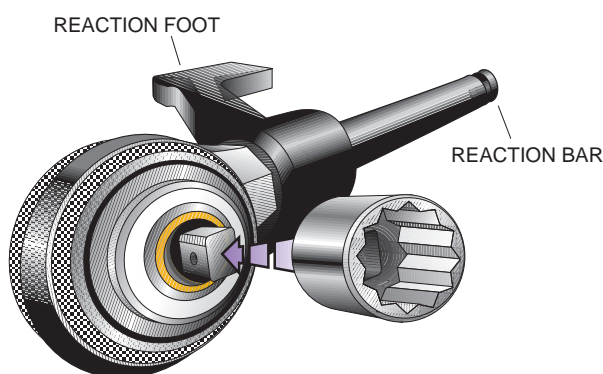
'S' RANGE

PART No.	Drive	Range	L mm	g
KST 2040	1/2"	40-210Nm	470	1,350
KST 2041	3/8"	5-25Nm	270	490
KST 2042	1/2"	50-250Nm	525	1,500

PART No.	Drive	Range	L mm	g
KST 2043	3/8"	20-110Nm	365	830
KST 2044	1/2"	70-350Nm	630	2,450
KST 2046	3/4"	80-400Nm	850	3,700

INDUSTRIAL RANGE

PART No.	Drive	Range	L mm	g
KD 3AR	3/4"	100-500Nm	915	5,200
KD 4R	3/4"	150-700Nm	1090	6,300
KD 4AR	3/4"	200-800Nm	1140	6,400
KD 5R	3/4"	300-1000Nm	1470	7,300
KD 5AR	3/4"	700-1500Nm	1470	10,400



TORQUE MULTIPLIER

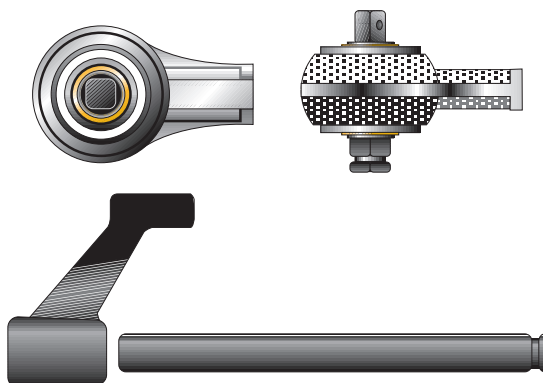
PART No.

KDM3

Single Stage Epicyclic Gear Train
Multiplication Factor 5:1 ± 4%

Kit supplied in carrying case comprises:
 1 Multiplier
 1 Reaction Bar
 1 Offset Reaction Foot
Weight Complete: 6.2kg

Heavy duty version 5:1 ratio, 3/4" female square and 36mm male hexagon input, 1" square drive output with maximum torque capacity of 2700Nm (2000lbf ft.)
 Straight or offset reaction foot available.



TORQUEING HELPS

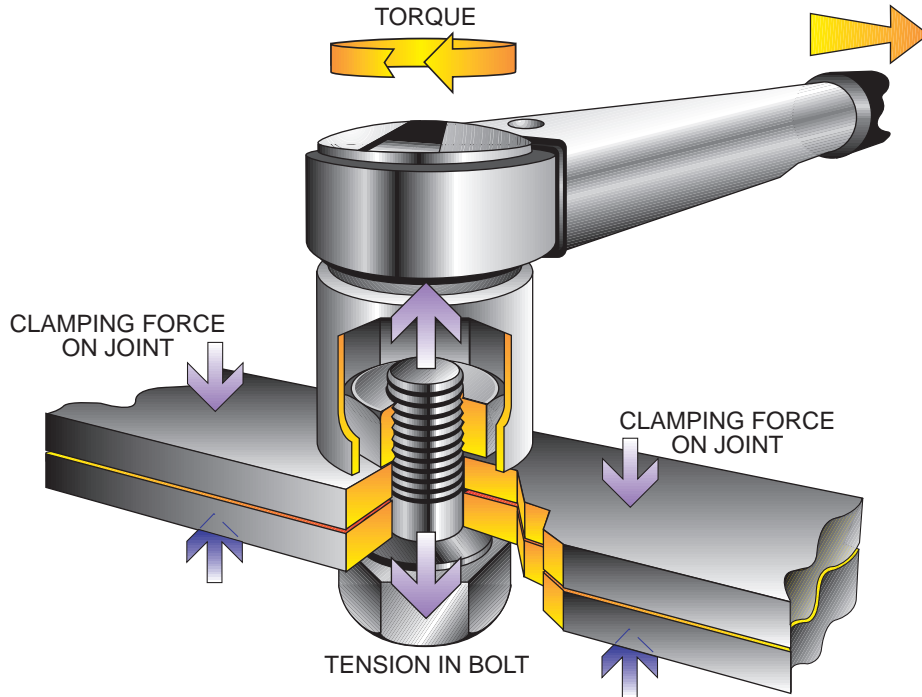
WHAT IS TORQUE?

Torque is a 'turning' or 'twisting' force and differs from tension which is created by a straight pull.

However, we use torque to create tension:

How? Referring to the diagram, it can be seen that as the nut and bolt are tightened the two plates are uniformly clamped together. The thread angle in the bolt converts the force applied into tension or (stretch) in the bolt shank. The amount of the tension created in the bolt is critical.

Why? When a bolt is tensioned correctly it is working at its optimum efficiency and will resist coming undone. However, if the tension is too low the nut could vibrate or work loose. If the tension is too high (overstretched), the bolt could break.



How do we measure Torque?

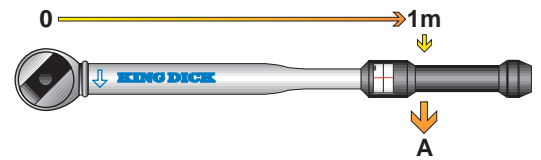
Torque is the result of multiplying the value of Force applied by the Distance from the point of application. Comparing the two diagrams below you will see that the same resultant Torque can be achieved with a lower Force if the Distance from the nut/bolt is increased.

It should also be noted that some torque wrenches are "length dependant" which means that the actual torque applied to the fastener varies if the hand position on the wrench is varied - even with the wrench preset! This occurs if the pivot point of the wrench mechanism is not coincidental with the point of application of torque.



Example A
20lb.ft. applied at 1ft distance equates to 20lb.ft.

Example B
10lb.ft. applied at 2ft distance equates to 20lb.ft.



Torque can also be measured in Newton Metres as illustrated above.

Example A
1Newton applied at 1m equates to 1N.m.

TORQUE CONVERSION SCALE

