

▼ Shown from left to right: E291, E393, E494



Accurate, Efficient Torque Multiplication

When accurate make-up or break-out of stubborn fasteners requires high torque

Typical Torque Multiplier Applications

- Locomotives
- Power plants
- Pulp and paper mills
- Refineries
- Chemical plants
- Mining and construction
- Off-road equipment
- Shipyards
- Cranes.

- High-efficiency planetary gear sets achieve high output torque from low input torque
- Operator protected by anti-backlash device
- Torque multiplier accuracy $\pm 5\%$
- Reversible, tighten or loosen bolts
- Reaction bar or reaction plate style
- Angle-of-turn protractor standard on E300-Series models
- Reaction plate models offer increased versatility with reaction point locations
- E300 and E400-Series have replaceable shear drives, providing overload protection of internal power train
- One replacement shear drive is included with each E300 and E400-Series models.

▼ SELECTION CHART

Torque Multiplier Type	Nominal Output Torque		Model Number
	(Nm)	(Ft.lbs)	
Reaction Bar Multiplier	1015	750	E290PLUS
	1355	1000	E291
	1625	1200	E391
	2980	2200	E392
	4340	3200	E393
Reaction Plate Multiplier	2980	2200	E492
	4340	3200	E493
	6780	5000	E494
	10845	8000	E495



◀ Enerpac Reaction Bar Torque Multiplier E393 used to manually torque bolts up to 4300 Nm.

Manual Torque Multipliers
Enerpac manual torque multipliers provide efficient torque multiplication in wide clearance applications and when external power sources are not available.

Use Reaction Bar Models:

- Where space is limited,
- Where multiple reaction points are available,
- When portability is desirable.

Use Reaction Plate Models:

- Above 4300 Nm output torque,
- On flanges and applications where neighbouring bolt or nut is available to react against
- When extreme reaction forces are generated.

Manual torque multipliers are used in most industrial, construction, and equipment maintenance applications. Hydraulic torque wrenches are better suited for tight tolerance, flange and repetitious bolting applications.

Selector Pawl
Models with anti-backlash protection have directional selector pawls. Set the pawl for clockwise or counter-clockwise rotation.

Shearable Square Drive
Provides overload protection on E300- and E400-series multiplier's power train by shearing when the rated capacity of the tool is exceeded. Internal shear pin prevents tool from falling off bolt.

Angle-of-Turn Protractor
E391, E392 and E393 models include an angle-of-turn protractor (scale) to tighten fasteners using a "torque turn" method. Allows accurate measuring a specific number of degrees of rotation.

Reaction Bar Type¹⁾

Reaction Plate Type¹⁾

Input Torque ²⁾	Torque Ratio	Input Female Square Drive S1 (inch)	Output Male Square Drive	Overload protection	Anti-Backlash	Dimensions (mm)						Model Number			
						(Nm)	(Ft.lbs)	Replaceable Shear Drive Model Nr.	S2 (inch)	D	H		L	L1	L2
338	250	3 : 1	½	¾	–	No	No	71	84	218	–	–	–	1,8	E290PLUS
451	333	3 : 1	½	¾	–	No	No	71	84	442	–	–	–	2,5	E291
271	200	6 : 1	½	¾	E391SDK	Yes	No	100	102	498	–	–	–	6,3	E391
219	162	13,6 : 1	½	1	E392SDK	Yes	Yes	103	146	498	–	–	–	6,9	E392
234	173	18,5 : 1	½	1	E393SDK	Yes	Yes	103	165	498	–	–	–	8,3	E393
219	162	13,6 : 1	½	1	E392SDK	Yes	Yes	124	140	356	140	124	32	7,8	E492
234	173	18,5 : 1	½	1	E393SDK	Yes	Yes	124	163	356	140	124	32	10,6	E493
256	189	26,5 : 1	½	1½	E494SDK	Yes	Yes	143	222	378	178	89	42	15,4	E494
208	154	52 : 1	½	1½	E495SDK	Yes	Yes	148	273	386	178	89	48	22,8	E495

¹⁾ E200 and E400-series do not have an Angle-of-Turn Protractor (scale).

²⁾ User must verify manual torque wrench accuracy prior to use to ensure accurate final output torque.

E Series

Nominal Output Torque:
1015 - 10.845 Nm

Torque Ratio:
3:1 - 52:1

Output Ratio Accuracy:
 $\pm 5\%$

CAUTION!
Never use impact air tools for power driving torque multipliers. Torque multiplier drive train damage will occur.

Torque Wrenches
Enerpac offers a complete range of hydraulic, pneumatic and electric torque wrenches.

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BSH-Series Sockets
Heavy-Duty Impact Sockets for power driven torqueing equipment.

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