▼ 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

- **High-efficiency planetary gear sets achieve high output torque from low input torque**
- **Most models operator protected by anti-backlash device**
- **Multiplier output accuracy ± 5% of input torque**
- **Reversible, tighten or loosen bolts**
- **Reaction bar or reaction plate type**
- **Angle-of-turn protractor standard on E300 series models**
- **Reaction plate models offer increased versatility with reaction point locations**
- **E300 and E400 series replaceable shear drives provide overload protection of internal power train (one replacement shear drive is included)**

Typical Torque Multiplier Applications

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

◀ *Enerpac Reaction Bar Torque Multiplier E393 used to manually torque bolts up to 3,200 ft-lbs.*

▼ **SELECTION CHART**

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

Manual Torque Multipliers

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

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.

Use Reaction Bar Models:

- where space is limited
- where multiple reaction points are available
- when portability is desirable

Use Reaction Plate Models:

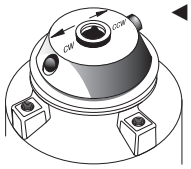
- above 3200 Ft-lbs. output torque
- on flanges and applications where neighboring bolt or nut is available to react against
- when extreme reaction forces are generated

E Series

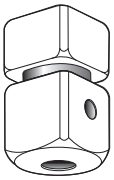
Nominal Output Torque:
750-8000 Ft.lbs

Torque Ratio:
3:1-52:1

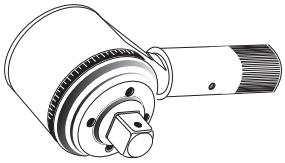
Multiplier Output Ratio Accuracy:
± 5 %



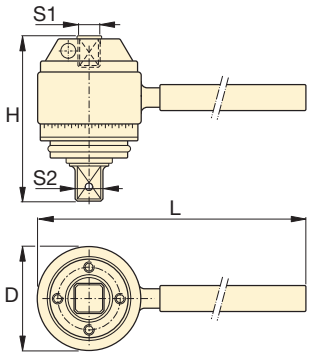
◀ **Selector Pawl**
Models with anti-backlash protection have directional selector pawls. Set the pawl for clockwise or counter-clockwise rotation.



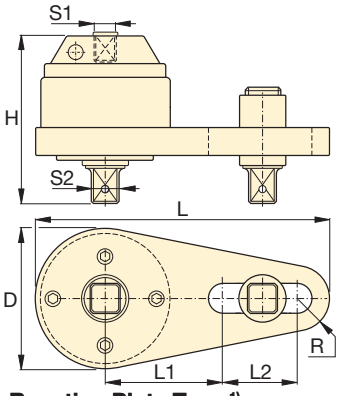
◀ **Shearable Square Drive**
Designed to provide overload protection on E300- and E400-series multiplier power train by shearing when excess input torque is applied. Internal shear pin prevents tool from falling off bolt.



▲ **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 Type [1)]



Reaction Plate Type [1)]

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

Hydraulic Torque Wrenches
Enerpac offers a complete range of square drive and hexagon cassette torque wrenches.

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

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Input Torque (Ft.lbs)	Input Torque (Nm)	Torque Ratio	Input Female Square Drive S1 (in)	Output Male Square Drive S2 (in)	Output Male Square Drive Replaceable Shear Drive Model No.	Over-load Protec-tion	Anti-Back-lash	Dimensions (in) D	H	L	L1	L2	R	Wt. (lbs)	Model Number
250	338	3 : 1	½	¾	–	No	No	2.8	3.3	8.6	–	–	–	4.0	**E290PLUS**
333	451	3 : 1	½	¾	–	No	No	2.8	3.3	17.4	–	–	–	5.5	**E291**
200	271	6 : 1	½	¾	E391SDK	Yes	No	3.9	4.0	19.6	–	–	–	13.8	**E391**
162	219	13.6 : 1	½	1	E392SDK	Yes	Yes	4.1	5.7	19.6	–	–	–	18.3	**E392**
173	234	18.5 : 1	½	1	E393SDK	Yes	Yes	4.1	6.5	19.6	–	–	–	15.2	**E393**
162	219	13.6 : 1	½	1	E392SDK	Yes	Yes	4.9	5.5	14.0	5.5	4.9	1.3	17.2	**E492**
173	234	18.5 : 1	½	1	E393SDK	Yes	Yes	4.9	6.4	14.0	5.5	4.9	1.3	23.4	**E493**
189	256	26.5 : 1	½	1½	E494SDK	Yes	Yes	5.6	8.7	14.9	7.0	3.5	1.7	34.0	**E494**
154	208	52 : 1	½	1½	E495SDK	Yes	Yes	5.8	10.7	15.2	7.0	3.5	1.9	50.3	**E495**

[1)] E200 and E400-series do not have an Angle-of-Turn Protractor (scale).
User must verify manual torque wrench accuracy prior to use to ensure accurate final output torque.