

# Installation Cost Comparison

## TCBs vs High Strength Hexagon bolts

### Hexagon Preloaded Bolts

- Estimate 3½ minutes per bolt to install M30 High Strength Hexagon bolts  
*(figure used by leading UK steel erection company)*
- Total hours based on 2 men needed to install hexagon bolts

Example: A project with 5,000 M30 bolts, 3½ minutes per bolt installation time, £25.00 per hour labour cost, inspection qty 10% of bolts installed, 2 minutes per bolt inspection, £80.00 per hour inspection cost.

Installation hours required	=	292
Installation man-hours (2 x men)	=	584
Inspection man hours	=	17
Installation cost	=	£14,600.00
Inspection cost	=	£ 1,360.00
<b>Total labour cost</b>	=	<b>£15,960.00</b>

### Tension Control Bolts

- Estimate 2 minutes per bolt to install M30 TCBs  
*(figure used by leading UK steel erection company)*
- Total hours based on 2 men needed for initial fit-up and 1 to install TCBs

Example: A project with 5,000 M30 bolts, 2 minutes per bolt installation time, £25.00 per hour labour cost, inspection qty 100% of bolts installed, 1 seconds per bolt inspection, £80.00 per hour inspection cost.

Installation hours required	=	167
Installation man-hours (1.5 x men)	=	251
Inspection man hours	=	1.5
Installation cost	=	£6,275.00
Inspection cost	=	£ 120.00
<b>Total labour cost</b>	=	<b>£6,395.00</b>

**Savings through use of TCBs = £9,565.00 on 5,000 M30 bolts!**

*The figures used in these examples are very conservative. In fact in all the time studies undertaken by steelwork contractors, the overwhelming consensus of opinion was that at least twice as many TCBs could be installed in a given time over conventional preloaded bolts. In addition to saving on installation & inspection time, cost savings can also be had through less time on site, less crane hire, less disruption, less tool hire costs, less cabin hire, less welfare provision required, faster handover of projects, less HA/NR possessions required, less disruption in residential/business areas plus the operators on site are using low noise tooling with no risk of HAV syndrome.*

**TCB® - probably the best bolting technology in the world.**