

A well-known disadvantage of conventional hexagon flange head bolts is their relatively high head, and the need for appropriate sockets. However, bolts with much lower hexalobular drives offer a solution to this problem. Nedstar ES weight-saving drives allow bolts to be lighter and lengthens the functional lifetime of sockets, which don't slip off the drive easily. Production speeds can be increased and downtime caused by production errors is also significantly reduced.

Weight savings of 25% up to 40% can be achieved, compared to standard hexalobular drives. In fact, calculations changing all hexalobular and hexagon drives to Nedstar ES can result in weight savings of 1.4 kg per car, which helps manufacturers meet today's lower CO2 output requirements.

## Field of application

Nedstar ES is ideal for all applications in which a standard screw geometry simply can't be used conveniently. Application examples include fastening connecting rods, hinges and seats, as well as fixing additional aggregates and running gears.

Besides a broad selection of standard solutions, Nedschroef offers the integrated production, design and systems engineering capacity required to create bespoke solutions for even the most specific, demanding requirements at an attractive price point. Our engineers are ready to work together with you to create the ideal solution for your own application...

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one step ahead...

# Lower head: less weight



Weight reduction -32 % 4.1 g down to 2.8 g => reduction of 1.3 g

Height reduction -44 % 7.5 mm down to 4.2 mm => reduction of 3.3 mm

#### **Dimensions**

#### Head weight comparison to DIN EN ISO 34801

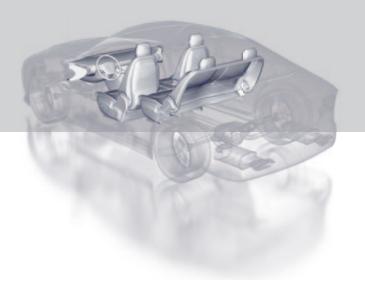
d (mm)	5	6	8	10	12	14	16
Nedstar	E8	E10	E12	E14	E18	E20	E24
c1 max (mm)	1.70	2.00	2.90	3.90	4.40	5.40	5.80
dw min (mm)	9.80	12.20	15.80	19.60	23.80	27.60	31.90
dc min (mm)	11.80	14.20	17.90	21.80	26.00	29.90	34.50
Head height k max (mm)	6.50	7.50	10.00	12.00	14.00	16.00	19.00
Weight Nedstar avg (g)	2.14	3.91	8.07	14.50	26.00	39.30	62.10
Head height k ES max (mm)	3.75	4.20	6.30	8.95	9.45	11.95	12.65
Weight Nedstar ES avg (g)	1.27	2.25	5.23	10.70	17.80	29.10	42.20

## **Properties**

- Significantly lower TXE flange head
- Height reduction greater than 40%
- Weight reduction greater than 30%

### Advantages

- Require less space
- Lighter
- Up to 40% weight savings compared to hexalobular drives



## Sample applications

- Connecting rod fastening
- Hinge fastening
- Seat fastening
- Fixing additional aggregates
- Fixing running gear
- In-car applications

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Nedschroef delivers world-class services and innovative, cost-effective solutions. Our expanding global operations offer everything from product design and development to delivery, installation and service, supported by a vast global partner network. 1,600 people at 24 facilities, including six centres of competence, in 14 countries worldwide are committed to our Full Service Provision concept.