

NEXT.assembly

x-gun

The innovative bolting system

The x-gun is a mobile multi bolting system. Up to 4 bolts can be loaded automatically, transferred to the bolting tool and bolted one after the other into the correct position.

It is a new type of direct bolting system. Compared to the bolting system previously used in the automotive industry with one extended spindle per bolting point, the x-gun system has the advantage that the extended spindles can be dispensed with. This leads to cost reduction and increased flexibility in the marriage process. In comparison to the direct bolting systems known in the automotive industry, up to 4 bolts are taken over simultaneously and not one after the other from a bolt nest.

The product x-gun is upwardly compatible with the Dürr Product x-bolt, i.e. it can be supplied as an option or retrofitted at a later date. Applications with robots or other NC axes are possible. Retrofitting to existing third-party systems is also possible.

STRUCTURE



Bolt nest, which is stationary or attached to the pallet

Magazin with takeover, sorting and feeding function, which is adapted on the bolting tool

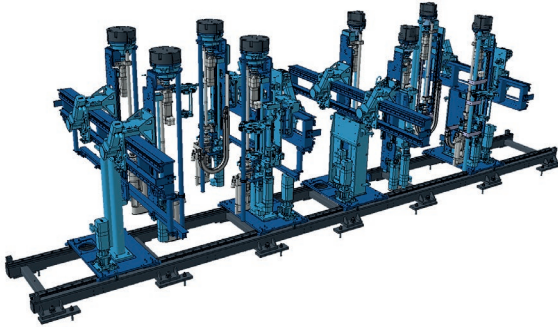
Indexing resp. lifting unit

Bolting system with adaption spindle

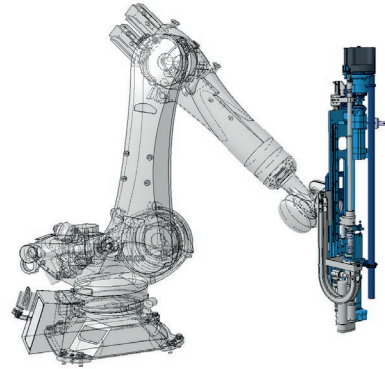
Servo rotating unit

Technical Data

x-gun



Bolting system x-gun with bolting system x-bolt



Bolting system x-gun with robot

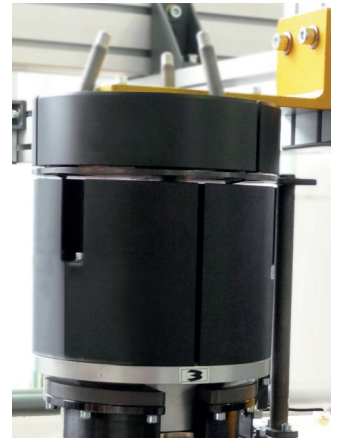
BENEFITS

- Complexity of pallets will be reduced (costs, flexibility)
- No extension spindles on pallets (pallet costs, system costs)
- Combi-unit takes over all bolts in one sequence (cycle time)
- Takeover of bolts is done during the movement to the bolting position (cycle time)
- Handling with robot technology and linear technology (flexibility of technology, costs)
- M8 to M14, 25 to 200 mm long, hex, torx or triple square
- Bolt nest can be positioned on the pallet or at the bolting station (flexibility, condition for cost-efficient automation, costs)
- Bolt nest can be loaded manually or automatically (unit costs, flexibility)
- System can also be used for other applications (battery, ...)
- Bolting under angle possible (inclined bolting)
- Minimum adaptation in case of future model change
- Reduction of number of bolting tools

SEQUENCE

The nest is manually or automatically fed with bolts. In the bolting station the bolts are taken by the magazine.

The bolts are clamped and positioned. During the movement to the respective bolt position, the bolts are transferred to the nut. This allows the bolt operation to be carried out.



Bolt takeover x-gun

TECHNICAL DATA

Quantity of bolts	3 or 4
Positioning accuracy	+/- 0,5 mm (x-bolt)
Bolt size	M8 to M14, independent from bolt head
Rotary drive	SEW servomotor (Alternatives on request)