



Handling Dies

Spreader
beam &
positioner

PFEIFER

In die casting, a die change is internal time — the machine stands still while the die is moved, separated and turned. Moving a multi-ton die is the largest part of that standstill, which makes die handling the first place a Quick Die Change program has to look.

Handled conventionally, the die is dealt with as two separate halves inside standstill: the machine parts it, then each half is craned out on its own and each new half is craned in on its own — four separate lifts while the most expensive machine on the floor is stopped, on manual slinging, with the accident and die-damage risk that brings.

With a PFEIFER spreader beam and positioner, the sequence changes:

- the spreader beam picks up complete or split dies automatically and squarely, in a single lift, for single- or dual-crane operation;
- the die leaves the machine complete, so standstill is two lifts instead of four, with no on-machine parting;

- the positioner takes over off the machine: it turns the die through 90° for maintenance and inspection, and — in its turn-and-separate configuration — splits the die while the machine is already casting again, controlled and reproducible every time.

The positioner scales to the job: a turn-only version for safe, repeatable maintenance turning, or the turn-and-separate version. Only the turn-and-separate version takes the die separation off the machine — and that is the step that shortens changeover time; the turn-only version is a safety and handling gain, not a changeover one.

Bottom line: fewer handling steps inside standstill, the die separation moved off the machine, and more casting time on your most expensive asset. Where that converts into OEE depends on your line; the changeover-time reduction is where it starts.

**Why die
handling
decides your
changeover
time**



Technical data positioner

The INVERTO positioner is used for the safe and gentle turning of heavy, bulky loads by 90°. It enables the controlled turning of large loads, allowing for precise and reproducible handling, separation and positioning.

The table is enclosed by a platform, allowing the operator to work ergonomically and safely at the height of the table top. Slow start-up and braking as well as fast centre movement enable gentle turning of the loads. Optional protective housings, safety strips and acoustic and visual signals ensure maximum safety.

KEY FEATURES

- + Gentle turning process**
Slow start-up and braking, fast centre movement - minimum turning time.
- + Maximum safety**
Protective housing and safety strips stop the process in case of crushing or jamming hazards, acoustic and visual warning signals.
- + Semi-automatic operation**
Reproducible, efficient processes for handling, separating and turning tools.
- + Individual support surfaces**
Adapted to the die for a secure hold during the turning process.
- + Brake energy recovery & monitoring**
Energy-efficient operation with power monitoring.
- + High load capacity**
Stable construction for heavy dies, reliable in continuous use.



FOR TURNING DIES



TURN & SEPARATE



COMPLETE OR SPLIT

Drive

2-strand reversible drive via gear motor and roller chain

Operation

Radio remote control (for safety strips) or stationary control button (for enclosure)

Safety

Reversing process can be stopped at any time and in any position via emergency stop; acoustic signals at start; two flashing lights for visual signalling

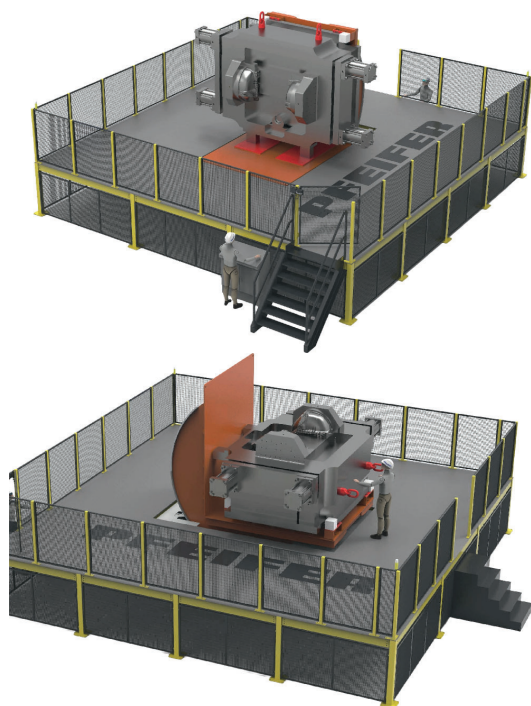
Delivery

Completely ready for operation with 400 V CEE socket; electrical supply cable, foundation bolts or barriers must be prepared on site

Optional

Fall protection, HMI control

Technical data positioner



WLL	Up to 165 short tons
Dimension table top	matched to die
Connection power	15 kVA
Turning time approx.	120 s
Cos φ / Power factor	0.81
Performance Level	D
External dimensions of platform	354.3 x 354.3 in, corresponds to an open slide dimension of 261.7 in
Floor bearing per base plate	6,161 psf
Contact pressure	72.5 psi



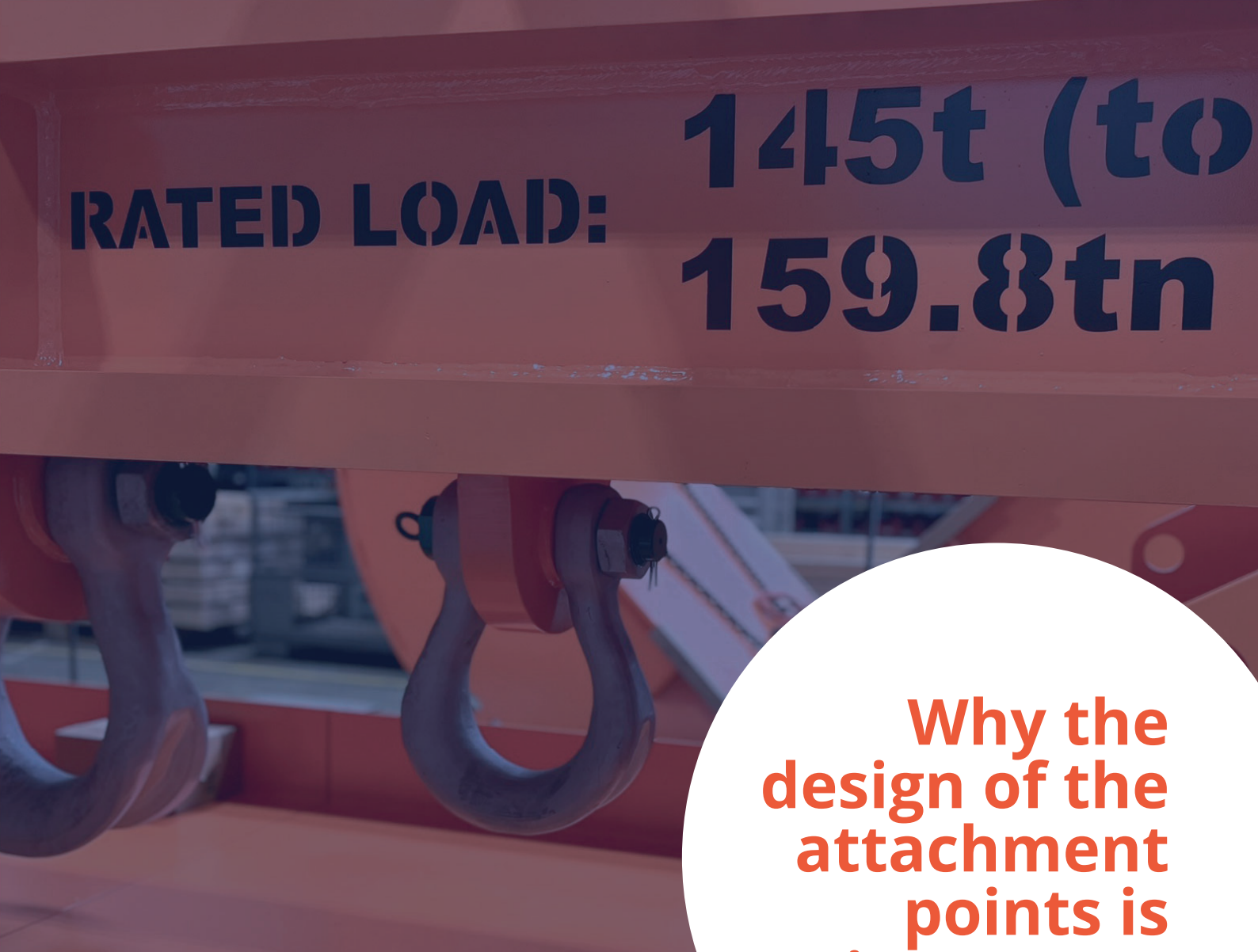
DESIGNED IN ACC. WITH EN 1570-1



128,000 LOAD CHANGES



TURN & SEPARATE



RATED LOAD:

145t (to 159.8tn

Why the design of the attachment points is important

When lifting, handling, separating and turning heavy die halves, a well-designed attachment point is an essential factor for a safe and economical production process. If the design of the attachment points is not taken into account during the construction phase of die halves, this often leads to costly special solutions, increased handling time and additional costs during operation.

Early coordination and practical design of the attachment points offer clear advantages throughout the entire handling process:

- Reduced setup and handling times to minimize downtime and sustainably improve OEE
- Increased process reliability through defined load pick-ups and reproducible movement sequences

- Gentle handling of dies to reduce wear, damage and rework
- Efficient use of crane and lifting devices without costly additional solutions or improvisation

Close cooperation between die suppliers, lifting device manufacturers and, ideally, crane suppliers is particularly crucial for automotive manufacturers and their suppliers. Only by taking a holistic view of the entire handling process can short cycle times, high plant availability and optimum OEE be ensured in the long term.

Technical data spreader beam

The spreader beam is used for the safe lifting and transport of complete dies and split dies (die halves). It enables automatic gripping of die halves via specially developed attachment points, ensuring safe, reproducible handling.

The spreader beam is designed for operation with one or two cranes and allows loads to be picked up either via a 2-point or 4-point sling. Thanks to the clear design and precise layout of the sling points, die halves can be handled quickly, safely and gently.

KEY FEATURES

- + Single and two-crane operation**
Flexible use in different production environments.
- + Automatic gripping**
Die halves are picked up directly via specially developed attachment points, no manual intervention required.
- + Flexible load handling**
Optional 2-point or 4-point attachment for different tool sizes.
- + Efficient**
Faster handling thanks to automatic attachment of the die halves.
- + Plannable maintenance**
Quick and easy maintenance without major downtime.
- + Flexible for different tool dimensions**
Electric motor-driven spreader beam movement in the working length.



Suspension

Suitable for single or double crane hooks.
Adaptation to your crane hook no.!

Operation

Radio remote control integrated into the crane

Safety

LED Signal lamps

Delivery

Fully wired, with electrical control in the switch box and with plug connection for connection to the crane electrical system, without spring cable reel

Design load attachment

Specially developed attachment points with M60/M90 thread



FOR LIFTING DIES



COMPLETE DIES



SPLIT DIES



HIGHLIGHTS

Designed acc. to DIN EN 13155 / ASME B30.20 / ASME BTH-1

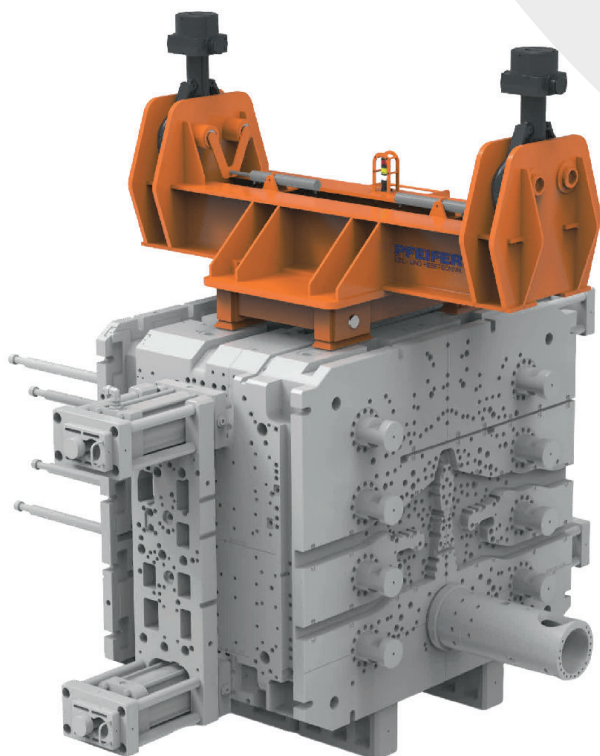
Compliant with the relevant safety requirements for lifting equipment.

16,000 + load cycles

Built for long-lasting performance and dependable operation.

Automatic gripping suystem

Enables safe, efficient and user-friendly handling of loads.



WLL	66 / 99 / 110 short tons
Working length	35.43 - 118.11 in
Design load attachment	2- or 4-point support
Suspension	single or two-crane operation



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