ALIGN PRODUCTION SYSTEMS

Buyer's Guide
MOLD & DIE TRANSPORTER

PRODUCT SITE

1A. OUR PRODUCTS

LIFT FOR VERTICAL DIE STORAGE

ADJUSTABLE HEIGHT DIE TRANSPORTER

DIE AND COIL TRANSPORTER

FIXED HEIGHT DIE TRANSPORTER

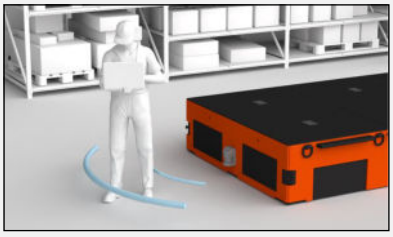
HIGH CAPACITY FLATBED TRANSPORTER

THE FINAL PAGE CONTAINS A LIST OF QUESTIONS FROM OUR ENGINEERING TEAM. PLEASE FEEL FREE TO FILL THEM OUT IN ADVANCE.

1B. OPTIONAL AUTOMATION

NAVIGATION

The right navigation type is based on your facility layout. Navigation types include reflector, natural, magnetic bar, magnetic spot, and QR code navigation, to move vehicles along predefined routes.



INTEGRATING WITH OTHER SYSTEMS

Our AGVs are integrated to interact with other systems within the manufacturing environment. AGVs pick up and transport materials while interacting with machinery and personnel.

SOFTWARE/PROGRAMMING

Our AGV software suite offers comprehensive tools for designing paths, monitoring diagnostics, and managing vehicle operations. We can help you create your path and integrate AGVs into your facility.

2A. FIXED TRANSPORTER

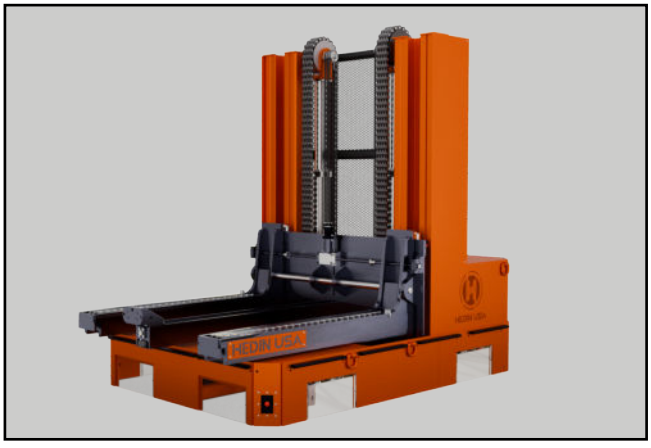
Flatbed transporters are specifically designed for moving mold and die tools, offering a stable and dependable transport solution. Each transporter features omnidirectional movement and includes capabilities that assist in both moving and securely positioning tools from the transporter to their final location. Each unit is built to accommodate specific tooling requirements.

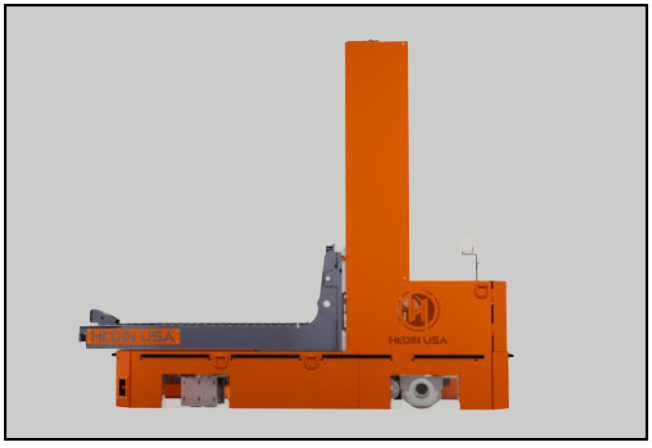
This style is ideal when height variability is minimal and the die is pre-loaded via crane or external system. Flatbed systems require extremely precise press height matching. Best for applications where press height and transporter roller height are nearly the same. Height precision is essential to ensure smooth die transfer, especially when no lift function is present.

2B. ADJUSTABLE TRANSPORTER

This model includes integrated lifts greater that 8 feet, an omnidirectional drive system (for zero-point turns and crab-walk alignment), and an advanced push/pull mechanism.

Our adjustable transporter is designed to drive directly under the die rack and lift the die without the need for an overhead crane, speeding up the changeover process. Rollers are built into the forks allowing smooth die transfer, and retract to lock dies securely in place. Angle sensors monitor roller level for safe alignment, especially on uneven floors.

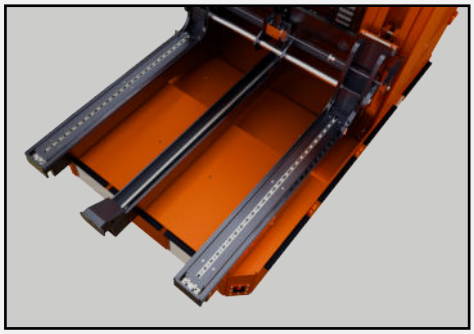




3A. PUSH/PULL APPARATUS AND FORCE REQUIREMENTS

Mechanical Latch System

Latch designs can be custom made to engage with a large variety of die fixturing for secure pushing and pulling. Optional automation and lockouts to confirm engagement can streamline the die changing process.



Electromagnet

Engages with a metal block on the die for automated retrieval. Not ideal for all applications due to force limitations.

TIP: If unknown, use a crane scale test attach the die to a forklift, measure the force required to pull it off the press. Inaccurate force estimates may cause failures in engagement and require costly post-delivery retrofits.

3B. MAINTENANCE

Regular maintenance of the mold and die transporter is important to keep it running safely and efficiently. Use the checklist below to inspect key parts and make sure everything is working properly.

Inspect the following every 6 months:

Check hydraulic lines, fittings, and valves

Look for any leaks or damage in the hydraulic lines. Make sure all fittings and valves are tight and in good condition.

Inspect electrical parts

Check wires and connectors for any loose connections or damage. Replace anything that looks worn or broken.

Tighten all bolts and fasteners

Make sure all nuts, bolts, and screws are secure. Tighten anything that feels loose.

Clean or replace hydraulic oil filter

Take out the hydraulic oil filter and clean it if it's reusable. If not, put in a new one.

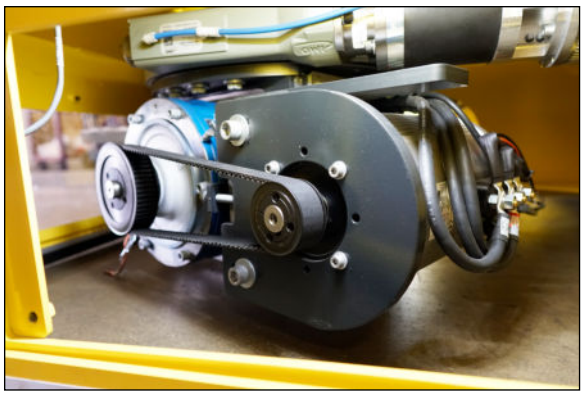
Safety Feature Testing

Emergency Stop Function

Test emergency stop button regularly to confirm full shutdown.

Sensor Calibration (if applicable)

Confirm angle feedback sensors, limit switches, and load sensors are providing accurate readings.



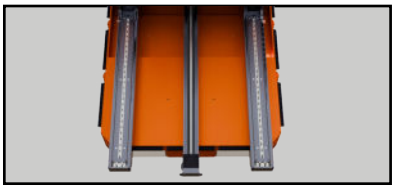
4A. SAFETY OPTIONS

Emergency Stop Button

The emergency stop button instantly shuts down the transporter and cuts power to stop all operations.

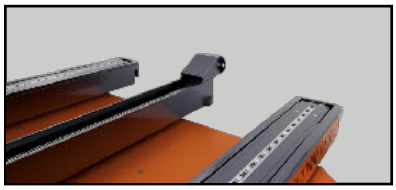
Flashing Lights

Flashing lights are installed on both sides of the transporter to act as warning signals, alerting people.



Roller Retraction Monitoring

Sensors confirm that rollers are properly retracted before transport to prevent unintended die movement.



Automatic Lockouts

Lockouts prevent lifting when the electromagnet is engaged to avoid collision with rollers and minimize damage to dies.

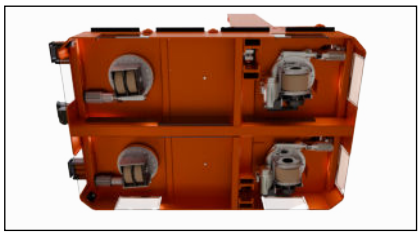
Safety Bumpers

The safety bumpers absorb impact during operation, helping prevent damage to the equipment and surrounding structures.

Custom Safety Features

Each unit can be configured with safety interlocks, speed limits, and lift permissions depending on your operational needs.

4B. FEATURES



OMNIDIRECTIONAL DRIVES

Omni-directional drives allow the transporter to move in any direction for easy manueverability in tight spaces.

AGV FUNCTIONALITY

AGVs are automated vehicles that move materials safely and efficiently without manual operation.

LITHIUM ION BATTERY

Lithium-ion batteries are rechargeable power sources known for storing a large amount of energy in a compact size.

CONTACT SUPPORT

For spare parts, visit the Align Store or contact us at support@alignprod.com for support or any other inquiries.

support@alignprod.com

www.alignprod.store

SPARE PARTS

ALIGN

APPLICATION FORM

MOLD AND DIE TRANSPORTER

www.alignprod.com

GET A QUOTE

THIS SHEET IS OPTIONAL, BUT OUR TEAM WILL ASK THESE AND OTHER QUESTIONS TO BETTER UNDERSTAND YOUR PROJECT.
PLEASE ANSWER TO THE BEST OF YOUR ABILITY, AS SOME RESPONSES MAY AFFECT OTHERS. OUR TEAM WILL HELP YOU WORK THROUGH IT.

PRIMARY CONTACT INFORMATION:

Name:_____
Company:_____
Address: _____
Phone: _____
Email: _____

PROJECT DESCRIPTION:

_____
_____
_____
_____
_____

APPLICATION DETAILS

Die Loading Method
(Select one or more)

- ☐ Lift from rack using transporter forks
- ☐ Loaded by overhead crane onto transporter
- ☐ Other (please describe): _____

Height of Press Rollers (inches)
(Measure from floor to top of press rollers)
_____ **Inches**

Dimensions of Dies (L × W × H in inches)

Length: _____ Width: _____ Height: _____

Die Weight (lbs)
_____ **lbs**

Push/Pull Force Required (if known)
(Use crane scale or site test. Use crane scale peak measurement to account for all static friction forces.)
_____ **lbs**

Type of Engagement on Die for Pushing/Pulling
(e.g., metal block for magnet, bracket for mechanical latch)
_____

Number of Presses in Use

_____

How many die changes per day (average)?

_____

Indoor / Outdoor Use

- ☐ Indoor Only
- ☐ Outdoor Only
- ☐ Both

Floor Conditions
(Check all that apply)

- ☐ Flat and level
- ☐ Slightly uneven
- ☐ Sloped
- ☐ Has obstacles (cables, grooves, rails, etc.)

Any height restrictions (e.g., doorways, beams)?
Height clearance required: _____ **inches**