

## Shot Pins

*Welker's most versatile and durable automation component, used as retractable locating pin, part stop, probe slide, escapement, backup, or straight acting clamp.*

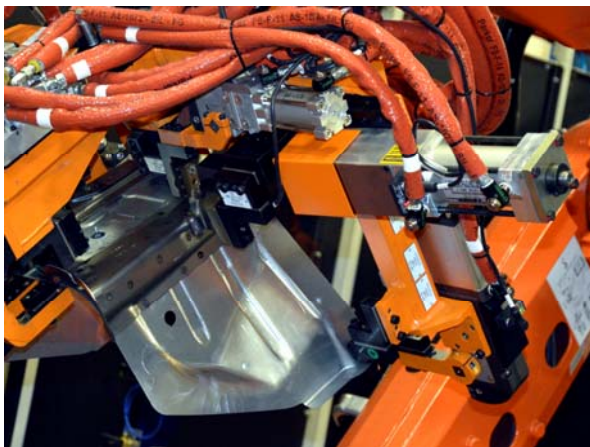


UB Series

WP Series

SB Series

- Welker Shot Pins require minimal maintenance.
- Resistant to corrosion and weld spatter.
- Steel & aluminum construction is structurally strong and durable yet lightweight.
- Safety orange steel shrouds are available on all units, providing protection from weld spray.
- All Welker Shot Pins are NAAMS compatible.



*UB4 on end effector in weld cell*

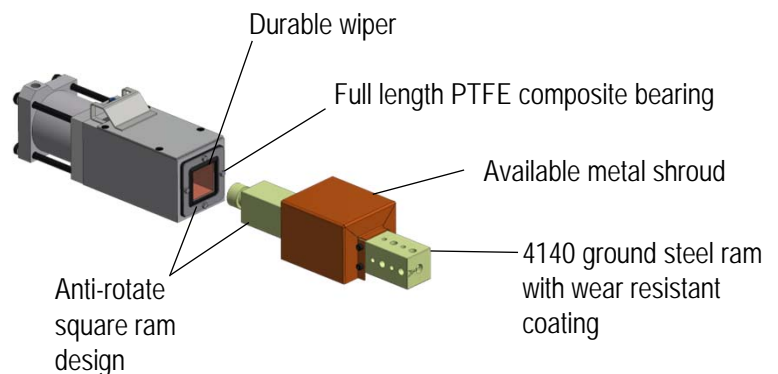


*Shot Pin in assembly line - still running strong after 10 years*

## The Welker Advantage

**NO LUBRICATION REQUIRED!**

*Welker shot pins provide long-term accuracy & repeatability for precision location.*



# Shot Pins

## Bull Pin HP5

*Retracting locating pin with a 2kg slide hammer piston. Rap action provides concentrated pulling power. A greater than four times shaft diameter to bearing length ratio is always fully engaged, offering long precision life. No maintenance or greasing required!*

*Welker trademark simplicity: Bull pin unit has a total of 15 components, including seals and switches  
Save money and time with commercial components*

### Bull Pin Features:

- Chrome plated shaft is 100% continuously engaged in bearings
- Durable urethane scraper keeps contamination out
- Anti-rotate feature is completely sealed from contamination. Allows mounting of 2-way pins and crowder pads.
- High-load PTFE composite bearings at both ends, 9" spread. A higher working load capacity than bronze or steel.
- Lubrication free
- Rap coupling with 2kg slide hammer piston on pneumatic cylinder
- Urethane bumpers in cylinder minimize noise
- Solid state cylinder switch or world switch
- Secure, easily accessible pin mount can also be used to mount crowder pads, etc.

**Applications:** Frame lines

*Bull Pin shown with pneumatic cylinder and weld field immune cylinder switch:*



*Bull Pin shown with hydraulic cylinder and world switch:*



*Optional mounting assembly for 2-way shim adjustment:*



*Manual operation Bull Pin:*

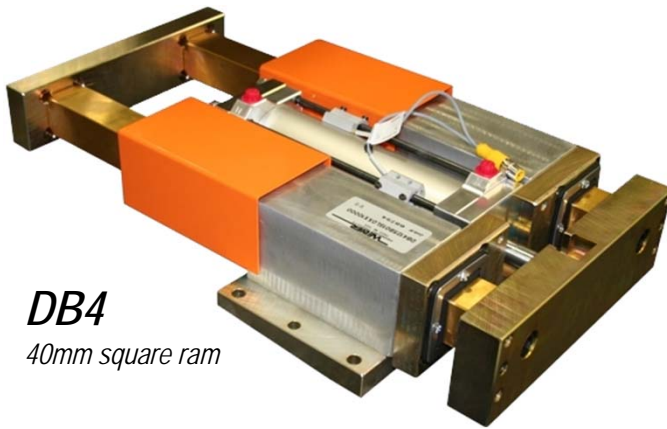


# Shot Pins

## DB Guided Slide/Lifter

*Can be mounted in any orientation, allowing it to function as a lifter, thruster, slide, pusher, adjustable side guide, or crowder.*

DB's double square ram provides super high rigidity and offers excellent torque resistance. High performance PTFE composite square bearing provides permanent lubrication. Standard unit features aluminum body with steel mounting plates and steel square ram. DBs use Welker Smart Stop for sensing and shimming both ends of stroke. Optional cylinder switch also available.

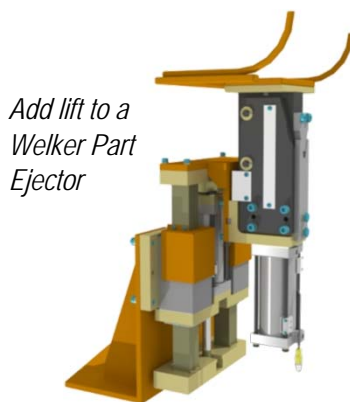


**DB4**  
40mm square ram



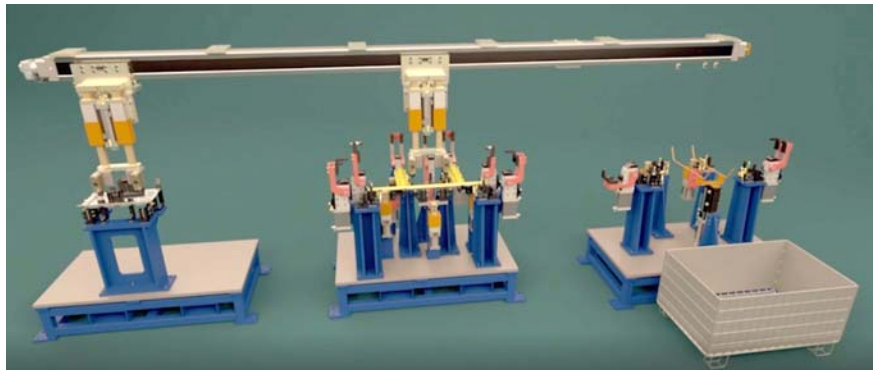
**DB2**  
24mm square ram

**Applications:** High torque nut-runners, overhung loads, weld gun tooling & locating feature nests.



*Add lift to a  
Welker Part  
Ejector*

*DB as a 2nd axis with extrusion slide in pick & place application*



# Shot Pins

## Shot Pins – For Automated Placement of Parts into a Precision Location

Model	Square Ram Size (mm)	Standard Strokes (mm)	Cylinder Bore (mm)	Switch Options	Distinction
UB2	24	25, 50, 75	50	Cylinder, World	Inline integrated cylinder
UB4	40	25, 50, 75	70	Cylinder, World	Inline integrated cylinder
SB4	40	25 to 200	63	Cylindicator ready (customer supplied)	Cylinder parallel to the ram
SB6	60	25 to 200	100	Cylindicator ready (customer supplied)	Cylinder parallel to the ram
WP4	40	25 to 200	40, 63, 70,	Cylinder	Inline independent cylinder
WP6	60	25 to 200	80, 100	Cylinder	Inline independent cylinder
DB2	24	25 to 150	50	Cylinder, Smart Stop	Double square ram
DB4	40	25 to 150	70	Cylinder, Smart Stop	Double square ram
HP5	Round Ø50	63, 100	50.8, 101.6	Cylinder, World	Heavy-duty slide hammer rap (3mm) action

### Custom

Welker takes pride in our ability to access and focus on the application needs of our customers. We meet or exceed customer requirements with durable, low-maintenance, cost-effective solutions. Components that perform multiple functions can help reduce the total number of parts and lower costs.

Our engineering staff can design custom components to operate in the most demanding applications using high-performance materials, our proprietary bonding process, and coatings that provide corrosion resistance and lower friction. In our well-equipped modern plant, our quality conscious machinists will manufacture your custom component to exact specification on time, every time.

## Flexible Automation Components

Locate • Clamp • Eject • Slide • Lift • Lockout • Position • Dimple • Ground  
Bearings & Friction Rollers • Switches

Welker Engineered Products 1401 Piedmont, Troy, MI 48083