

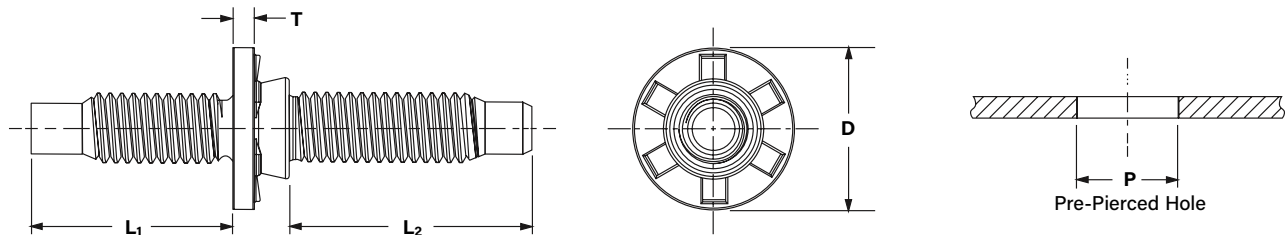
## Double-ended clinch studs for sheet metal applications

- System-fed fasteners
- Mechanically and automatically attached into a pre-pierced hole in a wide range of metal panel thicknesses
- Offer many cost and quality advantages over conventional fasteners
- Meet or exceed a minimum push out of 1.0 kN and a minimum unsupported torsional resistance as stated in table below under torque\*



\* This performance is for studs installed in 1008/1010 steel. For other materials consult with a representative

### DES double-ended clinch stud



Dimensions are in millimeters.

Stud Part Number	Metal Range	D	L <sub>1</sub>	L <sub>2</sub>	P ±0.05	T ±0.25	Min. Torque N·m
M6 a*	2.60 - 3.00	14.00	17.50	21.00	8.95	2.00	14.00
M6 b*	1.20 - 2.30	14.00	26.00	32.50	8.95	2.00	14.00
M6 c*	1.70 - 2.10	14.00	30.00	21.00	8.95	2.00	14.00
M6 d*	1.20 - 2.30	14.00	21.00	32.50	8.95	2.00	14.00

All can be property class 8.8, 9.8 or 12.9 fasteners

Material per GM500M

\*M6 DES clinch studs are standard. Other sizes can be made to order. Contact your representative

**INSTALLATION**

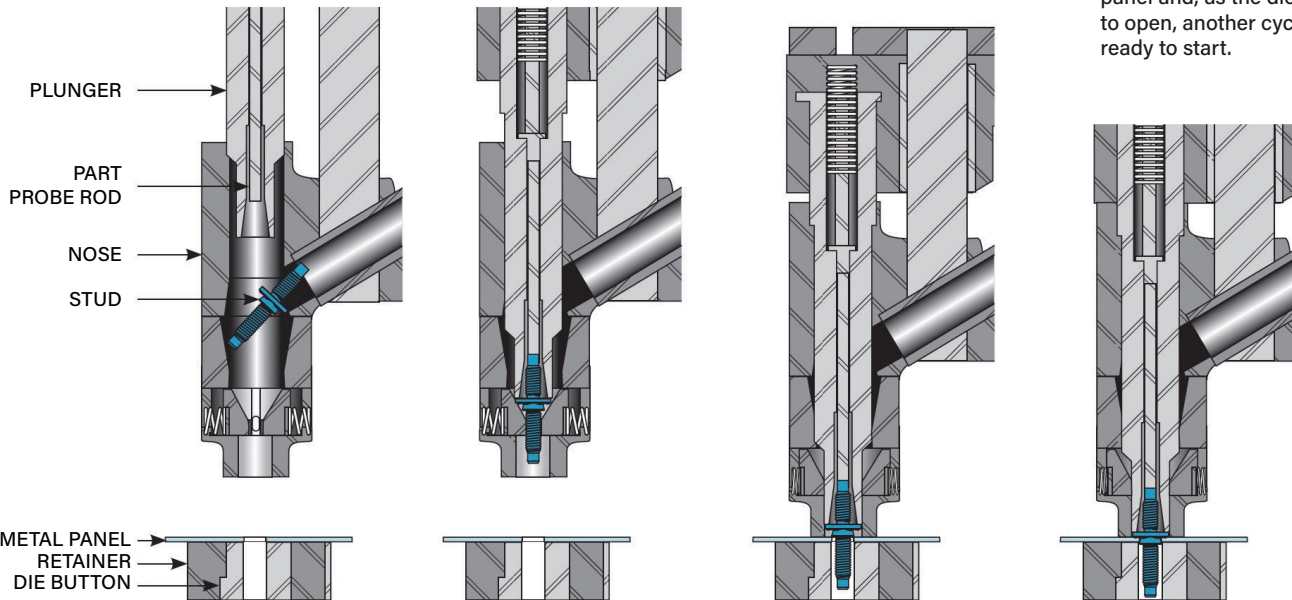
After aligning the DES Clinch Stud Installation Head in the die it is necessary to establish the proper shut height with respect to the thickness of the panel being used. Use visual inspection of the Clinch Stud installation as well as the PROFIL "Registry Marker" for establishing the proper shut height and as a continuous means of controlling installation integrity.

**1** A DES Clinch Stud is sent into the Head via an air feeder. The Clinch Stud is held in position by the DES Clinch Stud Installation Head until the customer part is in place, supported by the die button and retainer, underneath.

**2** The Head is partially closed with the use of a valve. Clinch Stud displaces part probe rod which activates sensor and signals system controller that Clinch Stud is in position for installation.

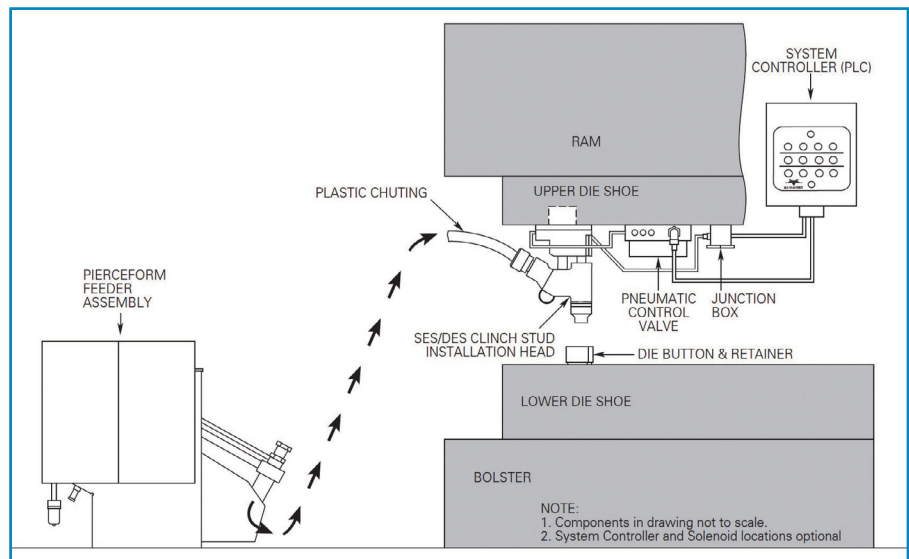
**3** As the die closes, the nose of the installation head contacts the metal panel and the plunger inside the Head begins to push the DES Clinch Stud through the panel.

**4** Stud contacts the Die Button, the Die Button will form the mechanical attachment onto the metal panel. You now have a complete radial engagement of the Clinch Stud to the panel and, as the die starts to open, another cycle is ready to start.



**OPERATION**

The DES Clinch Studs Feed System operates in unison with your press equipment to produce Clinch Stud attachments that are consistent time after time. For details concerning each component's setup and operation, plus maintenance and troubleshooting procedures, contact your sales representative.



All products meet our stringent quality standards. If you require additional industry or other specific [quality certifications](#), special procedures and/or part numbers are required. Please contact your local sales office or representative for further information.

Regulatory [compliance information](#) is available in Technical Support section of our website. Specifications subject to change without notice. See our website for the most current version of this bulletin.