

Hydraulic Traveling Clamp



Area of application

The latest OPTIMA Traveling Mechanisms uses Hollow Piston Cylinder Clamps (HKZ) to automatically clamp varying die widths. This model can be used in standard t-slots and is extremely easy to install. No die modifications are required, clamps fit into existing t-bolt cut-outs. All electrical connections are incorporated into a single quick disconnect plug. This HFS is ideal for new presses as well as retro-fit applications.

Functional Description

The HFS model is driven by an extremely rugged chain design that rides in the t-slot "head" area. This compact and maintenance free drive mechanism allows the clamps to be positioned anywhere along their travel range. Once the clamp reaches the die, its travel is halted by a proximity sensor and the clamp is hydraulically energized thereby securing the die. Clamp forces are continuously monitored via pressure switches in a redundant dual safety circuit. When unclamping, the clamp releases and is automatically retracted to its "home position".

Features and Advantages

- Travel of up to 40 inches
- Use of New or Existing T-Slots as small as 3/4 inch
- Operating Pressures of 2900 or 5800 psi
- Compact chain drive with Reversible 24VDC (115VAC) motor
- Electronical monitoring via two Proximity Switches
- Single Plug Multi-Pin Electrical Connection
- Generous Clamping Stroke (0.47")

The following functions are Electronically Monitored

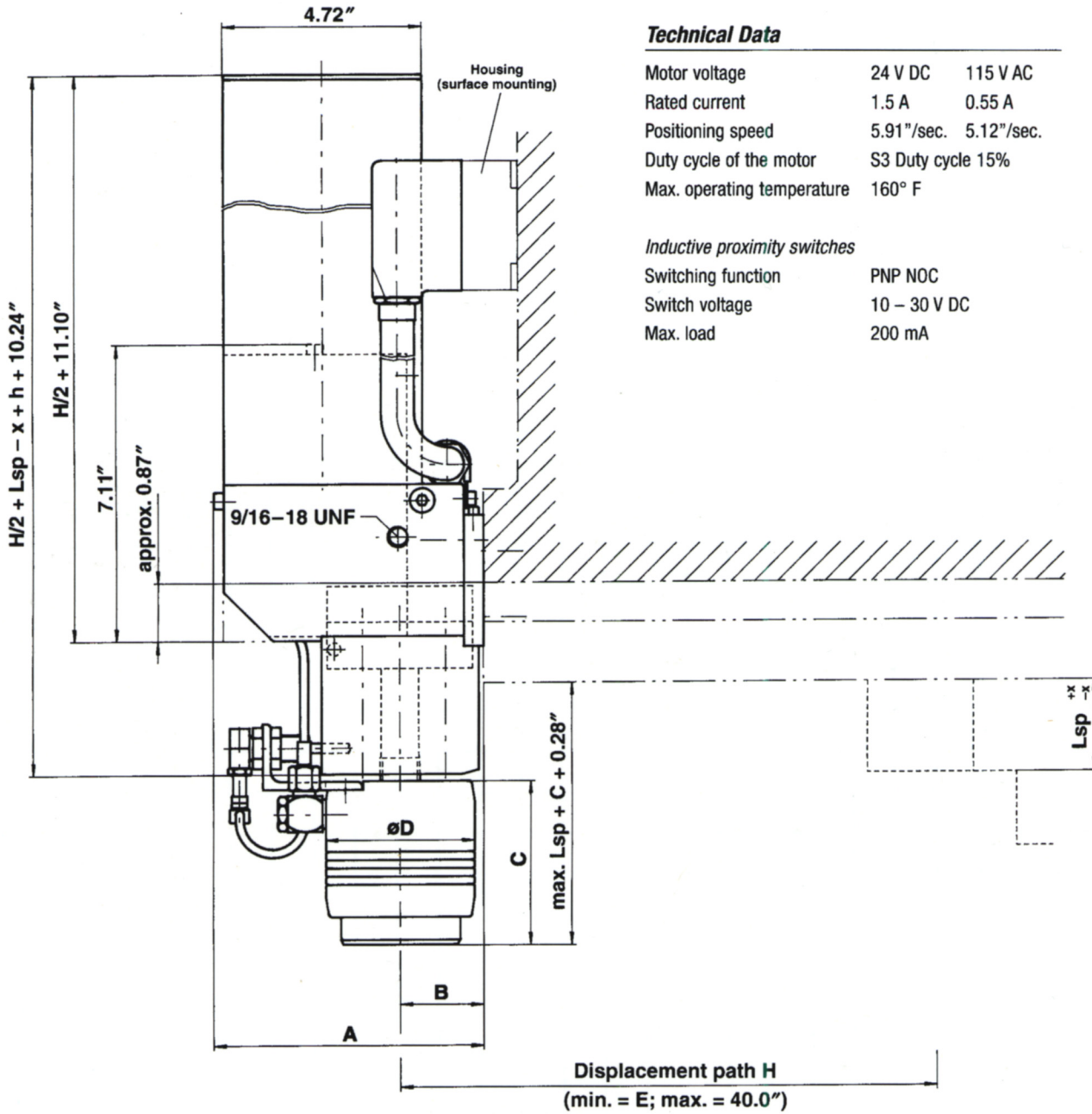
- Clamp Traveled Back (Home)
- Clamp Traveled Forward (Die)

Additional Equipment Available

- Pump/Tank Unit with Fail Safe Check-Valve Circuits
- PLC Control Panels
- Operator Stations

Note: For Bolster Applications please inquire about our HFT Model.

Hydraulic Traveling Clamp



Technical Data

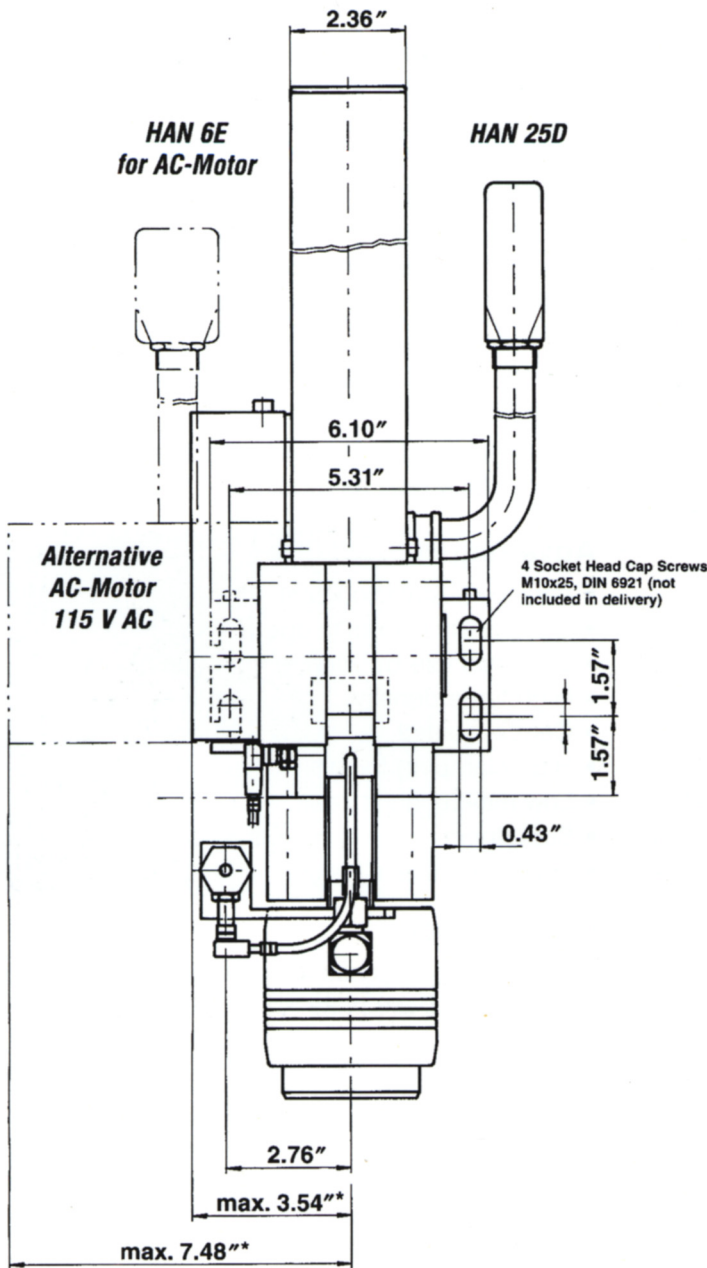
Motor voltage	24 V DC	115 V AC
Rated current	1.5 A	0.55 A
Positioning speed	5.91"/sec.	5.12"/sec.
Duty cycle of the motor	S3 Duty cycle 15%	
Max. operating temperature	160° F	

Inductive proximity switches

Switching function	PNP NOC
Switch voltage	10 – 30 V DC
Max. load	200 mA

Clamp Unit	Clamping Force (tons)	Operating Pressure (psi)	A	B	C	∅D	E	x
HKZ 104	11.4	5800	6.42"	2.05"	3.94"	3.54"	3.94"	0.12"
HKZ 116/200	12.8	2900	7.01"	2.64"	4.72"	4.72"	4.72"	0.08"
HKZ 175/200	19.3	2900	7.40"	3.03"	4.72"	5.51"	5.51"	0.08"

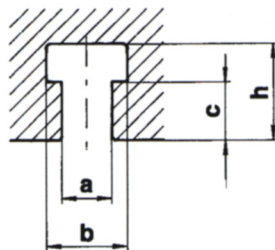
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T-slot dimension

a = min. 0.875"
 max. 1.50"

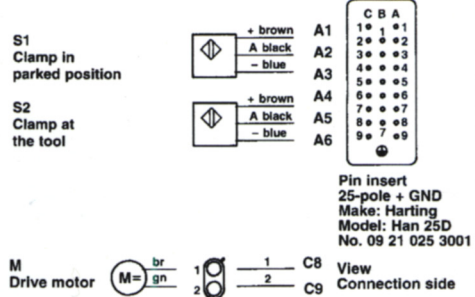
Please indicate machine T-slot dimensions when ordering!



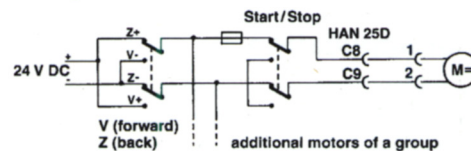
*depending on T-slot dimension "a"

Terminal Connection Diagram for

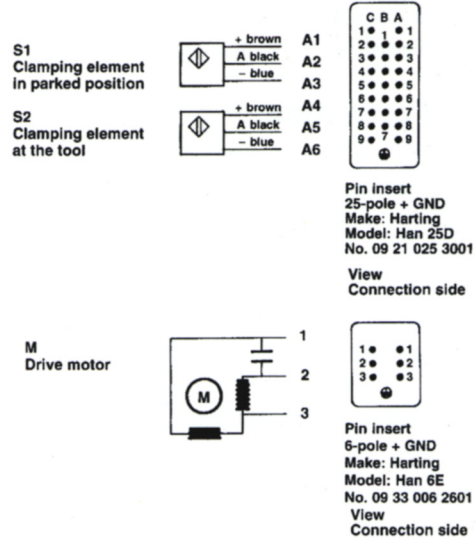
Standard version with DC motor



Driving the 24 V DC motors



Optional version with AC motor



Driving the AC motors

