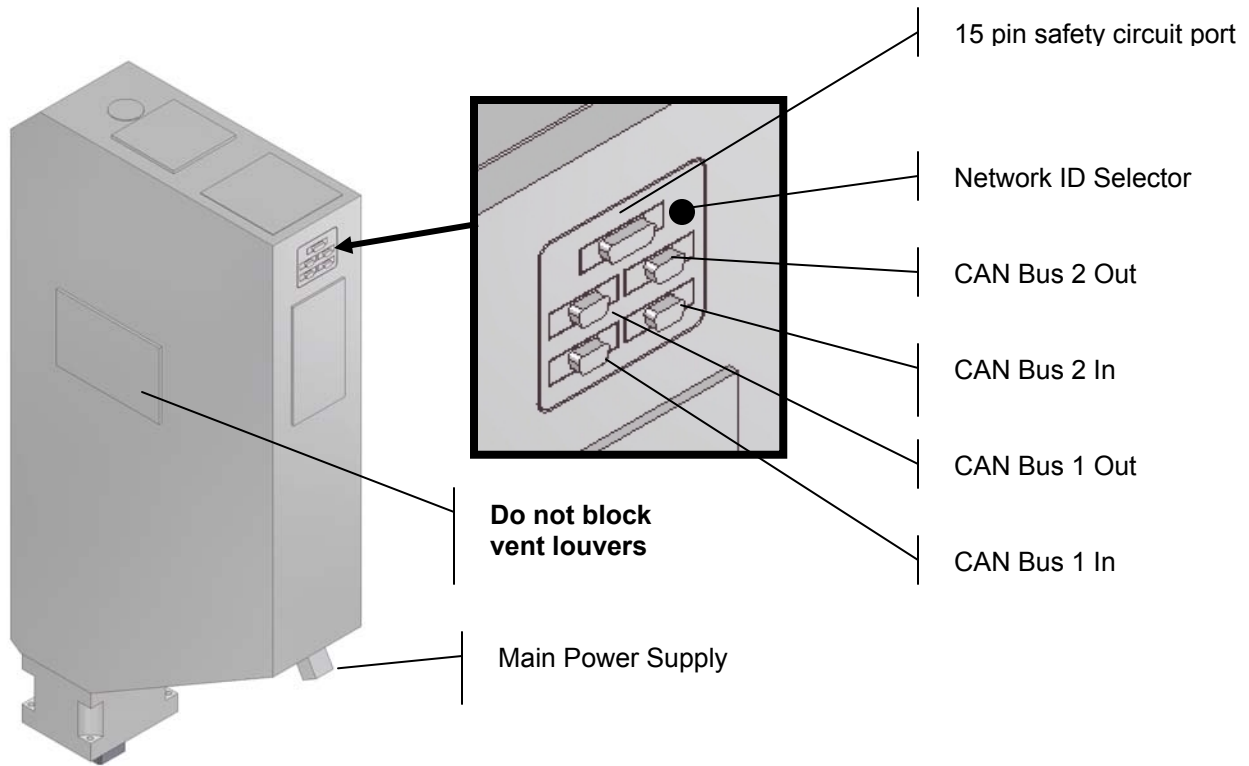


Electrical Connections



Electrical Power Supply to Module, 50 / 60 Hz

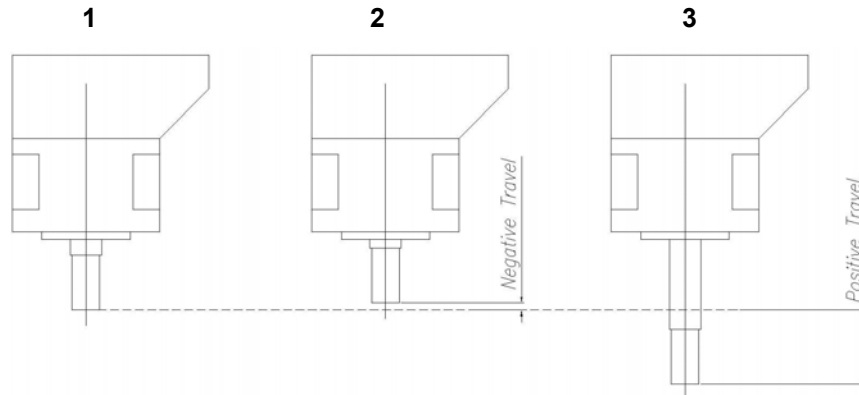
Module	Voltage	Alternate
405	1 x 230 V / 6.3 A	3 x 208 V / 6.3 A
415/416	1 x 230 V / 16 A	3 x 208 V / 16 A
417	1 x 230 V / 16 A	3 x 208 V / 16 A
420	3 x 400 V / 16 A	None
450/460	3 x 400 V / 35 A	None

Potential damage to the machine or to the tool

The available operating stroke is limited by reference stroke and spindle lubrication. These system functions move the ram above or below the TDC (top dead center) position per the table below.

Module	Stroke during lubrication	Stroke during referencing
405	- 9 mm	+ 8 mm
415/416	- 11 mm	+ 10 mm
417	- 17 mm	+ 20 mm
420	- 7 mm	+ 10 mm
450/460	- 7 mm	+ 20 mm

Appropriate considerations must be given during tool design.



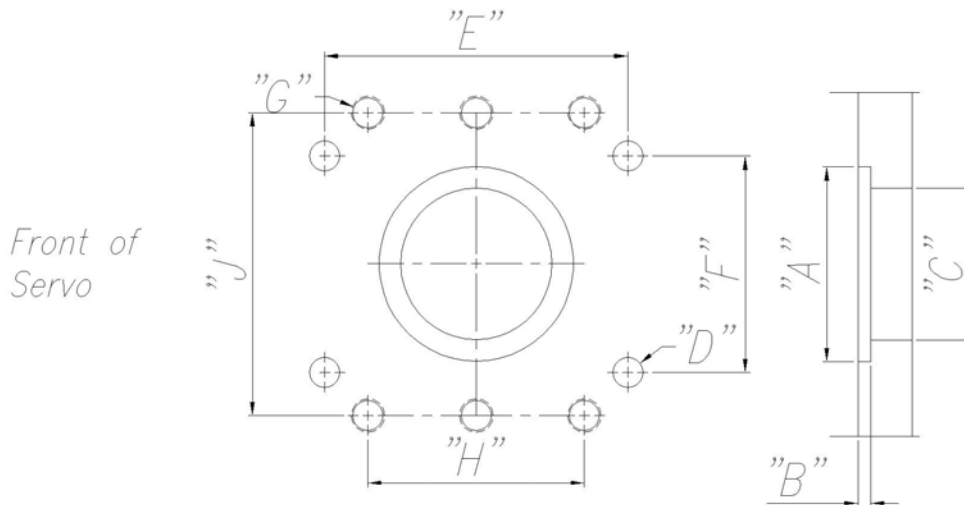
Restrictions of the ram stroke

- 1 – TDC Position (top dead center) = 0 mm absolute
- 2 – Most upper ram position during lubrication of the spindle
- 3 – Lowest ram position during reference stroke

Mounting provisions

Install screw through clearance hole in module or thread screw into module.

Module	"A" Dia	"B"	"C" Dia	"D"	"E"	"F"	"G"	"H"	"J"	Thread depth
405	45 H7	-	45	5,3	60	60	4xM5	40	60	10
415/416	45 H7	-	45	6,3	63	88	4xM6	59,4	59,4	13
417	65 H7	-	60	8,3	115	120	4xM8	75	120	18
420	90 H7	6	76	10,5	120	160	4xM12	120	160	21
450/460	100 H7	6	90	12,3	130	210	6xM14	120	210	27



Servo mounting pattern.

Illustration above shows hole pattern in module flange for mounting the press module.