

Components for the Metal Stamping / Metal Fabrication Industry

Components

Part Number	Model Number	Description
52-309	300	Calibrated Switch Actuator
39-021	301	Limit Switch with Actuator
39-120	302	Electric Foot Pedal
21-078	304	Air Cylinder Assembly
21-087	305	Automatic Ram Control Cylinder 3" x 2 1/2"
39-119	305A	Automatic Ram Control Cylinder (Extra Heavy Duty) 4" x 2 1/2"
39-020	306	Heavy Duty Pressure Switch
21-082	310A	4 Cam, Rotary Cam Limit Switch (with drive check)
21-089	310E	6 Cam, Rotary Cam Limit Switch (with drive check)
21-090	310G	8 Cam, Rotary Cam Limit Switch (with drive check)
21-091	310A-MD	4 Cam, Rotary Cam Limit Switch (with drive check & encoder)
21-092	310E-MD	6 Cam, Rotary Cam Limit Switch (with drive check & encoder)
21-093	310G-MD	8 Cam, Rotary Cam Limit Switch (with drive check & encoder)
39-114	311	3/4" Filter, Regulator, Lubricator
39-143	311A	1/2" Filter, Regulator, Lubricator
11-185	312	Run Bar Housing
UL-102-2P		Ergonomic Palm Button
UL-501	314	Operator Station
52-308	315	Sprockets & Chain for Rotary Limit Switch
52-307	318	Palm Button (including ring guard)
39-125	320D	Emergency Stop Button (30.5mm) 2 N.C. Latching
39-117	320DL	Emergency Stop Button (2.25") 2 N.C. Latching and Lockable
39-115	321	Top Stop Button (Yellow)
39-118	331	Universal Ring Guard only
52-227		Resolver unit (no cable)
45-020		Resolver cable (30') with connectors
39-013		NEMA only off/inch/single/continuous 4 position key switch
26-037		Silver Legend Plate (30.5mm) for AB key switch or button (must specify function)
26-041		Silver Legend Plate (22.5mm) for AB key switch or button (must specify function)
11-069		Adjustable Pedestal Stand - Model 8500 for #314 Operator Station (Range 32.5" to 47")
11-067		Adjustable Pedestal - Model 8000 for Light Curtain or Mirrors - 72" High
11-068		Adjustable Pedestal - Model 8096 for Light Curtain or Mirrors - 96" High
21-079		Model 9000 Swing Mount Brackets

Part Number

Description

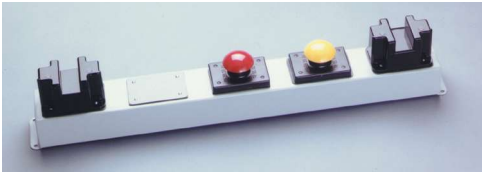
30-012 24vdc @ 2.2A power supply (90-260vac In) 3.9" L x 3.8" W x 1.4" H (99.1mm x 96.5mm x 35.6mm) for powering die protection sensor or auxiliary devices.

Dual Valves, Main Power Disconnects and Magnetic Motor Starters are available on upcoming pages.

For additional accessories and/or replacement parts not listed, please contact the factory directly.

Punch Press Control System Components

Operation Station UL-501



Operation Station No. UL-501

Includes two run palm buttons and one emergency stop palm button, internally wired.

Optional: Yellow top stop button added to operator run bar UL-501 (shown at the left).

Model Number 301 Part Number 39-021



Limit Switch with actuating arm

Oil-tight limit switch contains one set normally-open contacts and one set normally-closed contacts.

Model Number 302 Part Number 39-120



Electric Foot Pedal

An oil-tight foot switch. Contains one set, normally-open contacts, and one set normally-closed contacts. Includes a treadle guard to protect against accidental tripping. "Requires a point of operation guard when used for machine actuation," such as safety light curtains or safety interlock systems.

Dual Safety Valves See "Dual Safety Valves"



Dual Solenoid Valve

A most important aspect of double valve design is the incorporation of two separate 3/2 normally closed valve elements which are interconnected within a common valve body assembly. Each of the two valve elements is operated by its own 3/2 normally closed solenoid pilot valve. When simultaneously energized, both main valve elements are operated simultaneously. The probability of both independent valve elements malfunctioning on the same cycle is extremely remote.

Model Number 304 Part Number 21-078



Air Cylinder Assembly

A 1 1/2" (38mm) bore, 1" (25mm) stroke air cylinder, complete mounting bracket, and clevis.

Punch Press Control System Components

Pedestal Mounts Model 8000 & 8500



Pedestal Mounts

Painted OSHA yellow and made of heavy angle construction.

Model 8000: used to mount cornering mirrors or safety light curtains off of a machine. Order Part Number 11-067.

Model 8500: used to mount an operator station or palm buttons off of a machine and includes a top plate for mounting.

Both models are supplied with a floor mounting plate that can be lagged to the floor. Order Part Number 11-069.

Model Number 306 Part Number 39-020



Heavy Duty Pressure Switch

NEMA 12 oil-tight and dust-tight switch is adjustable from 1 to 115 PSI.

Model Number 310A Part Number 21-082



Rotary Cam Switch with Drive Check

The primary components which make up the Rotating Cam Limit Switch are Snap Action Switches and the Micro-Adjust Cams. The Micro-Adjust Cam Block consists of two cams with 180 degree lobes which can be adjusted relative to the cam shaft by simply rotating the adjusting disc. No tools are required to make this adjustment. The adjusting disc can be manually rotated. The cam block has a self-locking polyurethane gear which automatically locks the cams relative to the cam shaft, when the required contact setting has been obtained. Shown with drive check base.

Available with multiple cams and encoders.

Model Number 311 Part Number 39-114



Miniature Regulator, Oiler, Filter

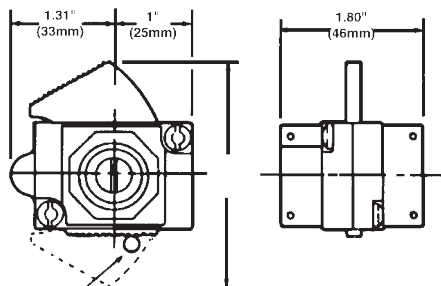
Model Number 318 Part Number 52-307



Palm Button with Ring Guard

Includes ring guard and mounting enclosure.

Shut-Off Valve



0.28" (7mm) diameter hole for lock

Ordering Procedure

Part Size PTF

- 1/4" (6mm)
- 3/8" (10mm)
- 1/2" (13mm)

Materials of Construction

Body: Zinc Slide: Acetal Plastic
 Elastomers: Nitride

Three-Way Valves Exhaust Downstream Air in Closed Position

- Part #TO8-200-E1PA
- Part #TO8-300-E1PA
- Part #TO8-400-E1PA

Dual Safety Air Valves for Punch Presses

DUAL AIR VALVES

Old Style Dual Air Valves for Replacement

Part Number	Model Number	Description
52-980	Size 4	1/2" NPT Serpar Dual Air Valve (Manual Reset)
52-981	Size 4	3/4" NPT Serpar Dual Air Valve (Manual Reset)
52-982	Size 8	3/4" NPT Serpar Dual Air Valve (Air Reset)
52-983	Size 12	3/4" NPT Serpar Dual Air Valve (Air Reset)
52-984	Size 12	1" NPT Serpar Dual Air Valve (Air Reset)



New Style Dual Air Valves for Control Reliable Systems

Part Number	Model Number	Description
52-985	303A - Size 4	1/2" NPT inlet - 3/4" NPT outlet DM2 Dual Air Valve (Air Reset)
52-986	303B - Size 8	3/4" NPT DM2 Dual Air Valve (Air Reset)
52-987	303C - Size 12	1" NPT DM2 Dual Air Valve (Air Reset)



Dual Valve Sizing for Air Clutch Punch Presses

Guideline of Minimum Valve Size to use.

Valve Size	Press Tonnage
Size 4	0 to 90 Ton
Size 8	100 to 200 Ton
Size 12	200 to 500 Ton

For Machines larger than 500 Ton, please consult factory.

AIR LOCKOUT VALVES

Part Number	Description
39-145	Air Lock-Out Valve - 1/4" (6mm)
39-146	Air Lock-Out Valve - 3/8" (10mm)
39-147	Air Lock-Out Valve - 1/2" (13mm)
39-136	Air Lock-Out Valve - 3/4" (19mm)
39-148	Air Lock-Out Valve - 1" (25.4mm)

IEC Style**Main Power Disconnects and Magnetic Motor Starters****MAIN POWER DISCONNECTS - IEC STYLE****All rated at 600 VAC**

Part Number	Model Number	Description	240 VAC HP	480 VAC HP
52-911	ID30	0-30 Amp IEC	7.5	15
52-912	ID60	31-60 Amp IEC	15	30
52-913	ID100	61-100 Amp IEC	30	60
52-914	ID200	101-200 Amp IEC	60	125
52-915	ID400	201-400 Amp IEC	125	200

MAGNETIC MOTOR STARTERS - IEC STYLE**Conforms to the IEC Standard 947**

Part Number	Description	240 VAC HP	480 VAC HP
52-961-INR-A	Non-Reversing	2	5
52-962-INR-B	Non-Reversing	3	7.5
52-963-INR-C	Non-Reversing	5	10
52-964-INR-D	Non-Reversing	7.5	15
52-965-INR-E	Non-Reversing	10	20
52-966-INR-F			25
52-967-INR-G	Non-Reversing	15	30
52-968-INR-H	Non-Reversing	20	40
52-969-INR-I	Non-Reversing	25	50
52-970-INR-J	Non-Reversing	30	60
52-971-INR-K	Non-Reversing	40	75
52-972-INR-L	Non-Reversing	60	150
52-941-IRR-A	Reversing	2	5
52-942-IRR-B	Reversing	3	7.5
52-943-IRR-C	Reversing	5	10
52-944-IRR-D	Reversing	7.5	15
52-945-IRR-E	Reversing	10	20
52-946-IRR-F			25
52-947-IRR-G	Reversing	15	30
52-948-IRR-H	Reversing	20	40
52-949-IRR-I	Reversing	25	50
52-950-IRR-J	Reversing	30	60
52-951-IRR-K	Reversing	40	75
52-952-IRR-L	Reversing	60	150

Note -- The Main Power Disconnect and Magnetic Motor Starters are priced to automatically include all applicable legend plates, push buttons, key switches (if required), larger control panel and factory installation.

NEMA Style

Main Power Disconnects and Magnetic Motor Starters

MAIN POWER DISCONNECTS - NEMA STYLE

All rated at 600 VAC

Part Number	Description	240 VAC HP
52-906-NED-30	0-30 Amp Rating	7.5
52-907-NED-60	31-60 Amp Rating	15
52-908-NED-100	61-100 Amp Rating	30
52-909-NED-200	101-200 Amp Rating	60
52-910-NED-400	201-400 Amp Rating	125

Part Number	Description	480 VAC HP
52-901-NED-30	0-30 Amp Rating	15
52-902-NED-60	31-60 Amp Rating	30
52-903-NED-100	61-100 Amp Rating	60
52-904-NED-200	101-200 Amp Rating	125
52-905-NED-400	201-400 Amp Rating	200

MAGNETIC MOTOR STARTERS - NEMA STYLE

Part Number	Description	240 VAC HP	480 VAC HP
52-931-NENR-00	Non-Reversing	1.5	2
52-932-NENR-0	Non-Reversing	3	5
52-933-NENR-1	Non-Reversing	7.5	10
52-934-NENR-2	Non-Reversing	15	25
52-935-NENR-3	Non-Reversing	30	50
52-936-NENR-4	Non-Reversing	50	100
52-921-NERR-00	Reversing	1.5	2
52-922-NERR-0	Reversing	3	5
52-923-NERR-1	Reversing	7.5	10
52-924-NERR-2	Reversing	15	25
52-925-NERR-3	Reversing	30	50
52-926-NERR-4	Reversing	50	100

Note -- The Main Power Disconnect and Magnetic Motor Starters are priced to automatically include all applicable legend plates, push buttons, key switches (if required), larger control panel and factory installation.