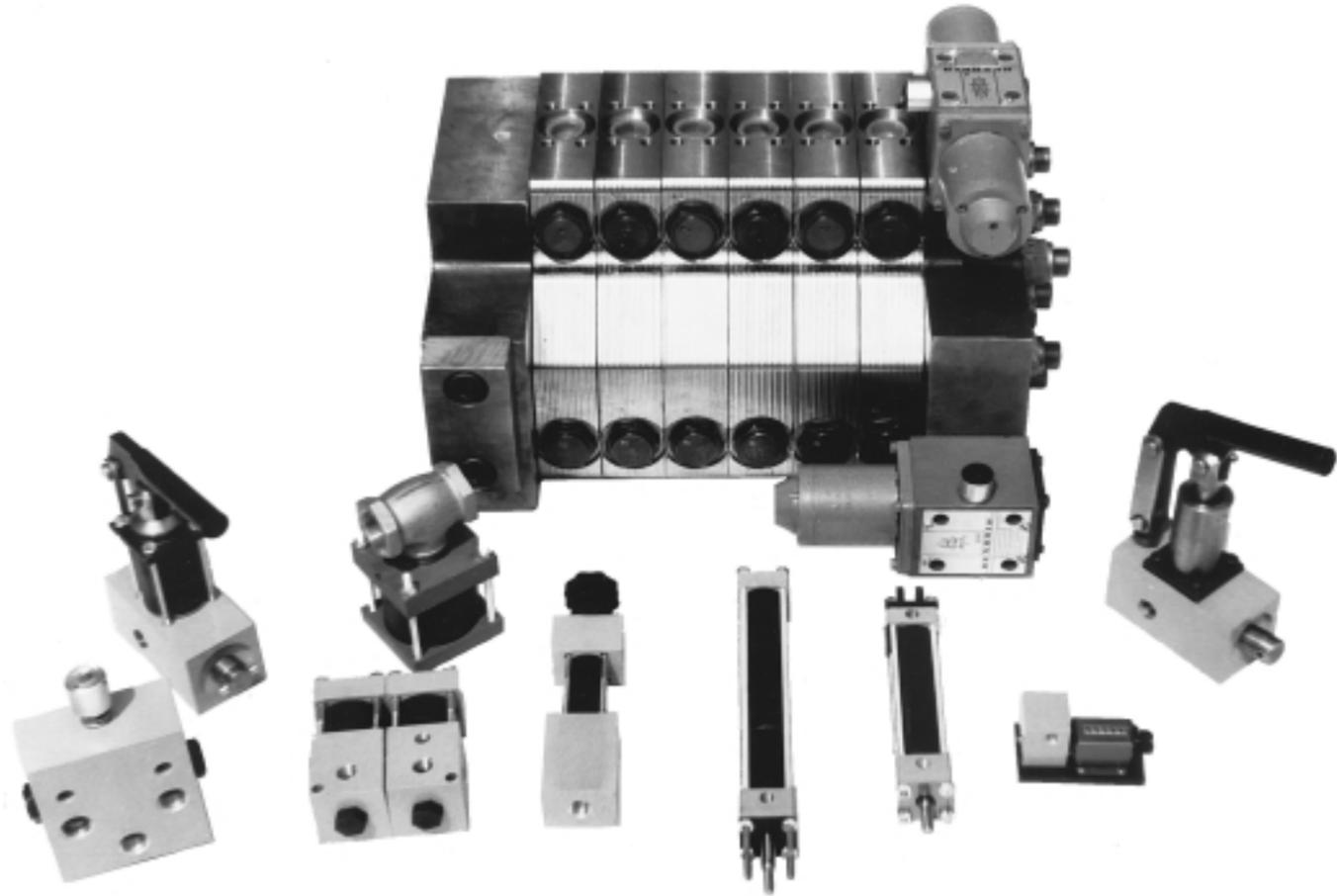


UNIQUE & PERSONAL CAPABILITIES

Manufacture • Design • Test • Service



SPECIAL AND STANDARD COMPONENTS FOR HYDRAULIC AND PNEUMATIC APPLICATIONS



CONTROL LINE EQUIPMENT, INC.

14750 Industrial Parkway • Cleveland, Ohio 44135
(216) 433-7766 • FAX: (216) 433-7664

Form # CAP-394

STANDARD PRODUCT CATALOGS

PNEUMATIC COUNTERS



PRE-DETERMINING OR TOTALIZING TYPE COUNTERS



CONTROL LINE EQUIPMENT, INC.
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Form # PC-693

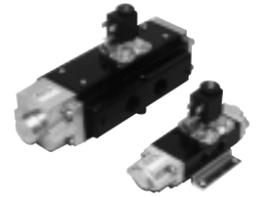
PNEUMATIC COUNTERS

Form #PC-693 describes Control Line Equipment's line of pneumatic counting devices. The four page brochure details operating specifications as well as installation drawings and in-depth description of operation. The counters are available in pre-determining, or totalizing, configurations with standard count speeds of 300 per minute. Higher count speeds are available as an option.

HIGH FLOW PNEUMATIC VALVES

Form #GJ-993 depicts Control Line Equipment's high flow spool valves. They are available in 1/4", 3/8" and 1/2" NPT sizes with Cv ranges from 1.7 to 6.6. 3-way and 4-way versions with 2 or 3 position configurations are available. Pilot and solenoid operated versions, with manual locking overrides, are standard. Coils for din connectors are standard on the solenoid versions.

"G" & "J" SERIES HIGH FLOW SPOOL VALVES



- 1/4", 3/8" or 1/2" NPT PORTS
- 3-WAY OR 4-WAY OPERATION
- PILOT AND SOLENOID OPERATED
- 2 AND 3 POSITION CONFIGURATIONS
- C_v RANGE 1.7 TO 6.6



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Form # GJ-993

SERIES "C" PNEUMATIC CYLINDERS



- 1-1/4" BORE
- 175 PSI MAXIMUM
- 4 MOUNTING STYLES
- SPECIAL CONFIGURATIONS AVAILABLE
- STANDARD UNITS SHIPPED FROM STOCK



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Form # C294

SERIES "C" CYLINDERS

Form #C294 depicts Control Line Equipment's line of 1-1/8" bore tie-rod type REPAIRABLE cylinders. The standard configurations are single acting, double acting or integral valve-in-head. Four mounting styles (Side Through Hole, Rear Pivot, Front Tapped and Head Trunnion) are available in double acting strokes through six and single acting through four in even inch increments. U-cup piston seals and/or magnetic piston construction for reed switch actuation are available as options.

PNEUMATIC VALVES

The C345 series of 3/8" NPT, 4-way, 2-position pneumatic valves is described in form #C345-693. C345 series valving is available in single or double air pilot as well as single or double solenoid and can be internal, or external, piloted as standard. Mounting can be in-line or on aluminum manifolds. Sandwich flow controls are available with manifold mount.

C345 SERIES PNEUMATIC VALVES



- 125 PSI AIR —
- 4-WAY, 2 POSITION, 3/8" NPT —
- SINGLE OR DOUBLE AIR PILOT —
- SINGLE OR DOUBLE SOLENOID —
- IN-LINE, BRACKET AND MANIFOLD MOUNTING —
- RUGGED MACHINE TOOL QUALITY & CONSTRUCTION —



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Form # C345-693

BRASSLINE CYLINDERS



- 3/8" TO 2" BORES
- 6 MOUNTING STYLES
- MOUNTING ACCESSORIES
- 250 PSI AIR, 500 PSI HYDRAULIC
- SPECIAL CONFIGURATIONS AVAILABLE



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Form # B1191

BRASSLINE CYLINDERS

Form #B1191 presents Control Line Equipment's round, REPAIRABLE brass cylinders. Seven bore sizes, from 3/8" to 2", with six mounting styles which interchange with other similar cylinder manufacturers are shown. Pressure ranges are pneumatic service to 250 PSI and hydraulic rating to 500 PSI. Two pages of option descriptions and a complete line of mounting accessories complete the brochure.

HYDRAULIC HAND PUMPS

Form #HHP592 describes Control Line Equipment's modular style hydraulic hand pumps. They feature all steel construction for the most rugged applications from 500 psig to 10,000 psig. Available as single or two-stage (hi-low) units with Buna seals as standard. Viton and EPR seals are readily available. Options include and integral tamper-resistant relief valve, and a unique bolt-together pump/reservoir combination.

HYDRAULIC HAND PUMPS SERIES 500/550



- 3/4" through 1 1/2" Bore
- Single and 2 Stage
- Modular Design
- Pressures to 10,000 PSIG
- All Steel Construction
- With or without Tamper Resistant Relief Valve
- Manifold Mount (optional)
- Custom Packages



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Form # HHP-592

Local Distributor/Representative:



Control Line for valves, cylinders and much more...

Have you been looking for a custom hydraulic or pneumatic engineering firm that can do things your way? Do you want to find one that won't require a large commitment? Look no further. Control Line Equipment Inc. is the firm you've been searching for.

Control Line Equipment Inc. is a company that traces its personal service roots for over sixty-five years. A company that supports its Distributors with engineering assistance, modifications to off-the-shelf components, as well as new product development and testing to solve your system problems. We listen to your requirements and work to find solutions that preserve the performance characteristics you may have been told you must give up.

Primarily, Control Line Equipment is a company dedicated to letting you have it your way. We are able to solve your problems with our extensive research, design, manufacturing and test facilities. Our skilled personnel are capable of fulfilling your unique component requirements. Control Line is experienced in applications that range from aerospace, mining, and heavy construction to industrial, agricultural, and consumer systems (both hydraulic and pneumatic). For example, a 4500 PSIG stack valve for construction equipment (Fig. 7.); to a 20-inch Hg vacuum shutdown valve (Fig. 4a.) for the glass industry. Problems are not too large, nor too small, for Control Line.

Control Line Equipment specializes in finding the most simple and affordable solution, by using off-the-shelf components in unique ways. We build it your way, affordably, to your performance specifications.

Control Line Equipment Inc. is a small company that puts personal attention and service first. Our engineers are available and ready to discuss your problems, or needs, in your facility, one-on-one. Control Line can probably send a prototype for you to examine before most companies can send you a quotation. We understand design and specification changes, even after a project has begun, and we are committed to making your project work within your budget.

On your next project, give us a call. We want to help solve your pneumatic or hydraulic problems the way you want them solved.



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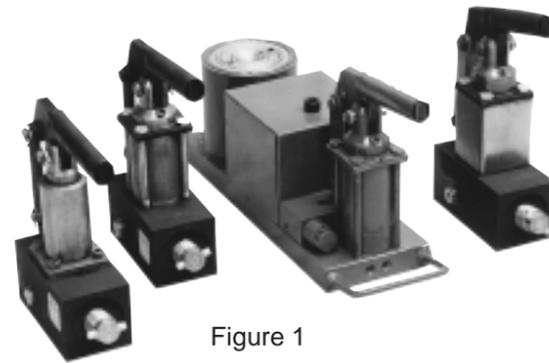


Figure 1

Figure 1
Single and two-stage hydraulic hand pumps; A two-stage pump incorporated into a 12-ton axle jack for the aircraft industry.



Figure 2

Figure 2
Specialized components made from standard parts, ranging from 3500 PSIG to 2 PSIG custom cylinders, spring centered cylinders, and slides.

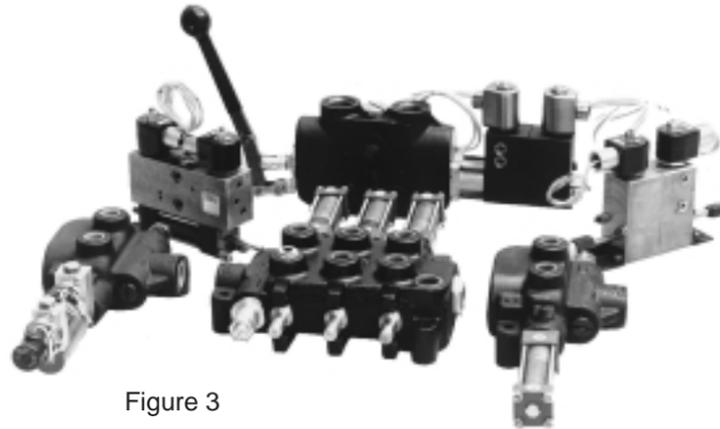


Figure 3

Figure 3
Hydraulic and pneumatic operators for monoblock and sectional control valves.

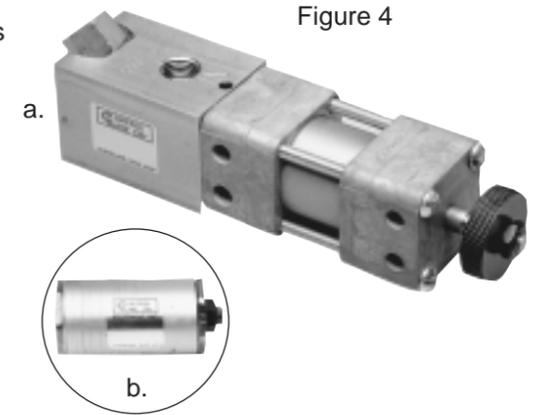


Figure 4

Figure 4
a.) Mercury dispenser for high vacuum (10^{-8} torr) service.
b.) A 20-inch Hg 30 SCFH vacuum shutdown valve for the glass industry.

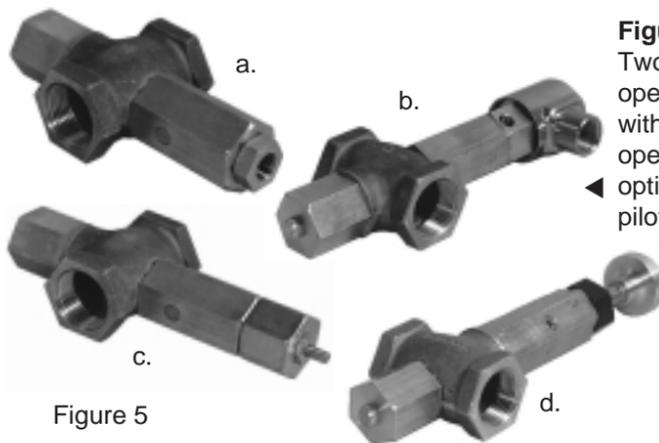


Figure 5

Figure 5
Two-way process valves: a.) Pilot operated, b.) Solenoid operated with external pilot, c.) Pilot operated with manual locking option, d.) Manual or remote pilot operated.

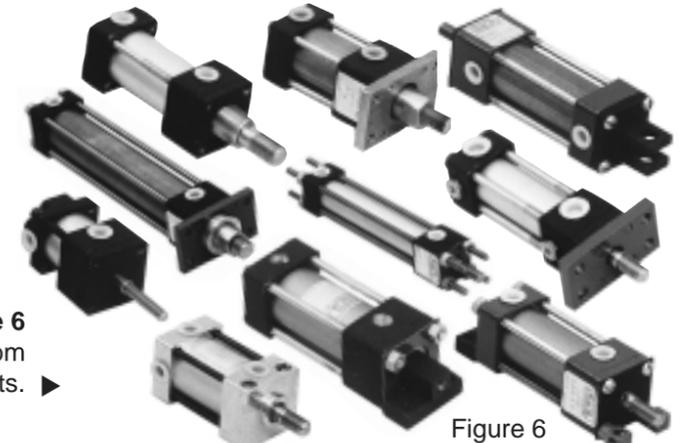


Figure 6

Figure 6
Custom-made cylinders from standard components.

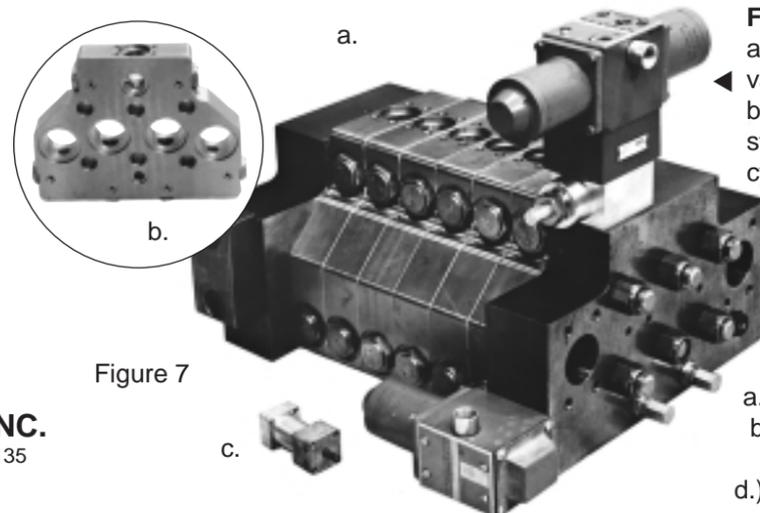


Figure 7

Figure 7
a.) A 250 GPM 4500 PSIG stack valve for construction equipment, b.) A center section from the stack valve, c.) C0212-0051.0 cylinder for size comparison.

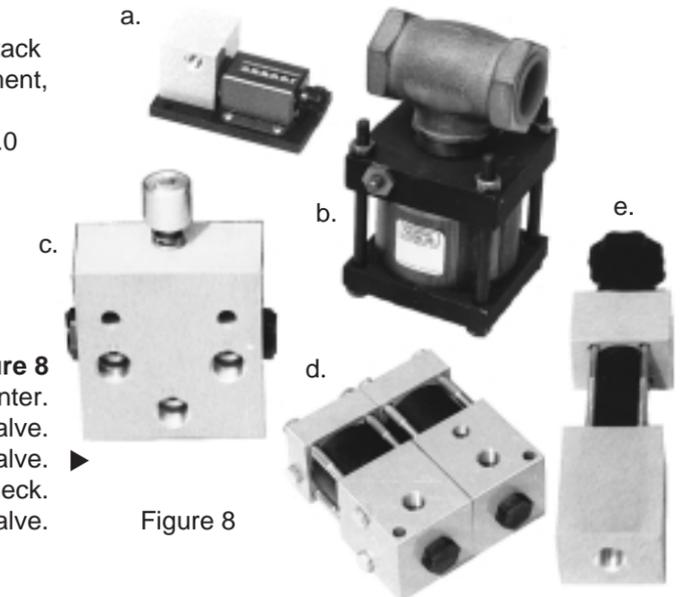


Figure 8

Figure 8
a.) Air/hydraulic impulse counter.
b.) Pilot operated process valve.
c.) 3-port lock valve.
d.) 4500 PSIG double pilot check.
e.) Sequence unloader valve.