

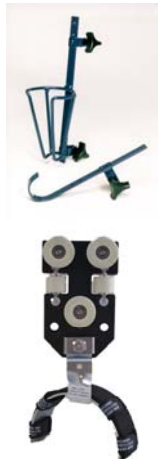
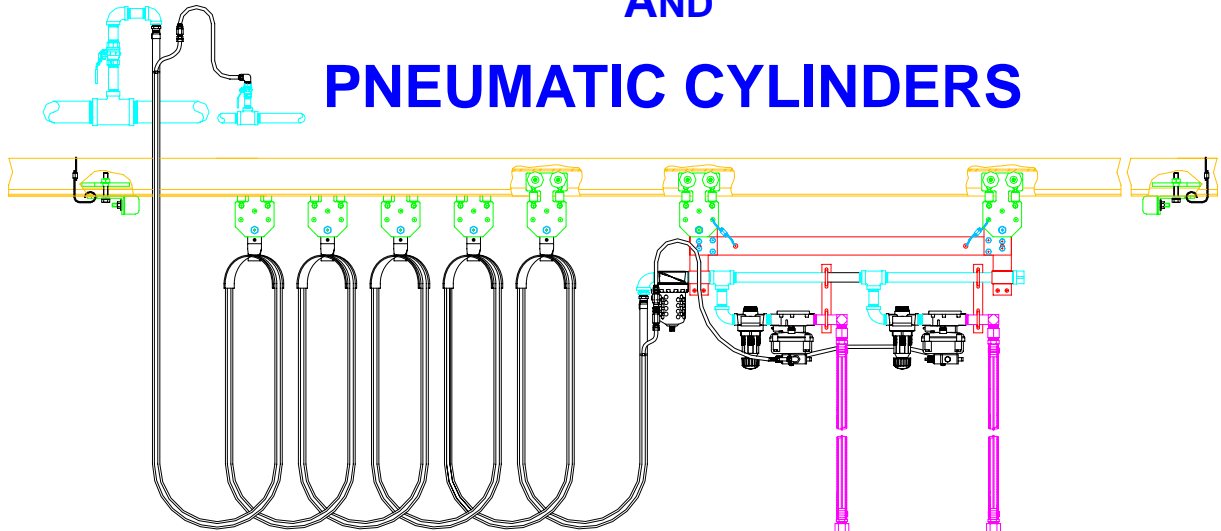


ACUMEN TECHNOLOGIES, INC.

51445 Celeste Drive • Shelby Township, MI 48315
(586) 566-8600 • Fax (586) 566-4062

**Precision Lubrication
by ACUMEN**

**LUBRICATION SYSTEMS FOR
POWER TOOLS, HOISTS, AIR MOTORS
AND
PNEUMATIC CYLINDERS**



Visit us on the web at:
www.acumen-tech.com



Clifford S. Willner, President

All of the employees here at Acumen Technologies, Inc. work together as a team and as individuals to provide the highest level of customer service and the most advanced products we can offer. Attitude is an important factor in this equation. When attitude is right, great things will happen !

Company Profile

Acumen Technologies, Inc. was established in November, 1997. We began as a group dedicated to the manufacture of high quality, precision fluid delivery systems. Our employees have extensive experience in this discipline and are driven to be the finest supplier of these systems in the world.

Acumen Technologies, Inc. has a distributor network where strategically located, technically trained personnel are available to provide field support for the products we offer.

There exists countless applications in these industries where Acumen Technologies, Inc. either has, or is developing, solutions to manufacturing problems. Acumen's product offering solves fluid delivery and lubrication problems in such areas as:

- Mechanical and motion control devices - air motors, power tools, actuators
- Conveyors / Chain
- Assembly Systems
- High Speed Spindles

It is our mandate to deliver the proper amount of fluid, where it is required, when it is required, every time it is required. It is imperative that the products we offer satisfy current industry needs, and that we remain focused on the identification of opportunities for the future. Engineered solutions to process and manufacturing problems, in the arena of fluid delivery, is our foundation.

Manufacturing Facility

Our plant is located in Shelby Township, Michigan. While we have the ability to expand, we currently utilize 10,750 square feet of a modern, six-year-old facility approximately twenty-five miles northeast of Detroit. Here we produce fluid delivery systems satisfying the requirements of numerous markets including Automotive, Textile, Product Assembly, Food Processing, Primary Metals, Plastics, Power Generationand more.



ACUMEN TECHNOLOGIES, INC.

DEDICATED TO SOLVING PROBLEMS PREVALENT THROUGHOUT
INDUSTRY BY THE EFFECTIVE UTILIZATION OF SINGLE POINT
INJECTION LUBRICATION.

FEATURES:

- USE UP TO 90% LESS OIL
- DELIVER OIL PRECISELY WHERE REQUIRED
- EASILY MAINTAINED
- PREFERRED BY OPERATORS

BENEFITS:

- TOOLS AND EQUIPMENT RUN BETTER
- TOOLS AND EQUIPMENT LAST LONGER
- TORQUE CONSISTENCY
- BETTER HOUSEKEEPING
- REDUCED OIL CONSUMPTION AND WASTE

WE PROVIDE:

- COMPLETE SYSTEMS
- IN-HOUSE TRAINING



CATALOG 200

INDEX



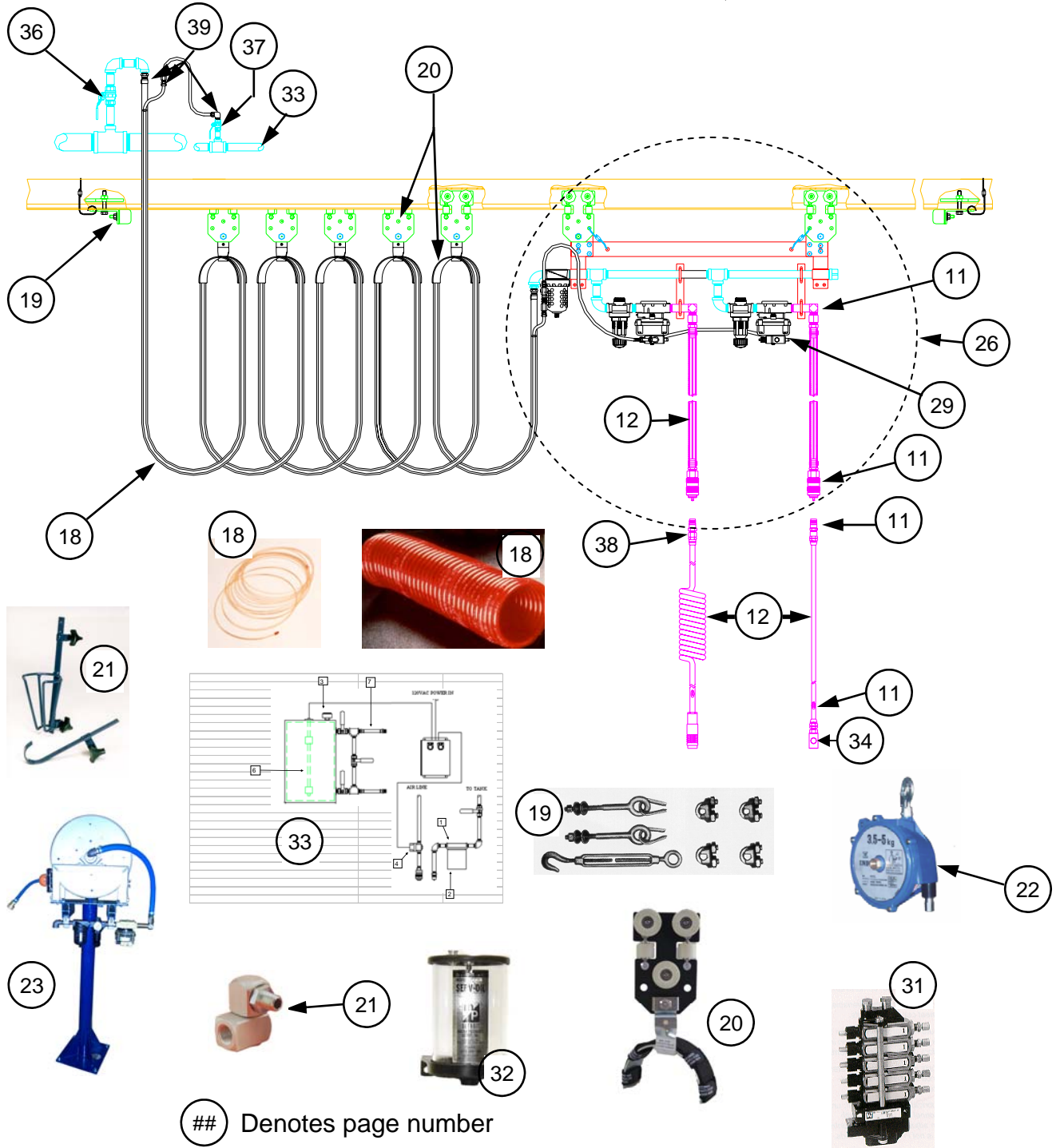
ACUMEN TECHNOLOGIES, INC.

| PAGE | DESCRIPTION |
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| 12 | COAXIAL HOSE ASSEMBLIES |
| 13 | STANDARD HOSE ASSEMBLIES |
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PICTURE INDEX



ACUMEN TECHNOLOGIES, INC.



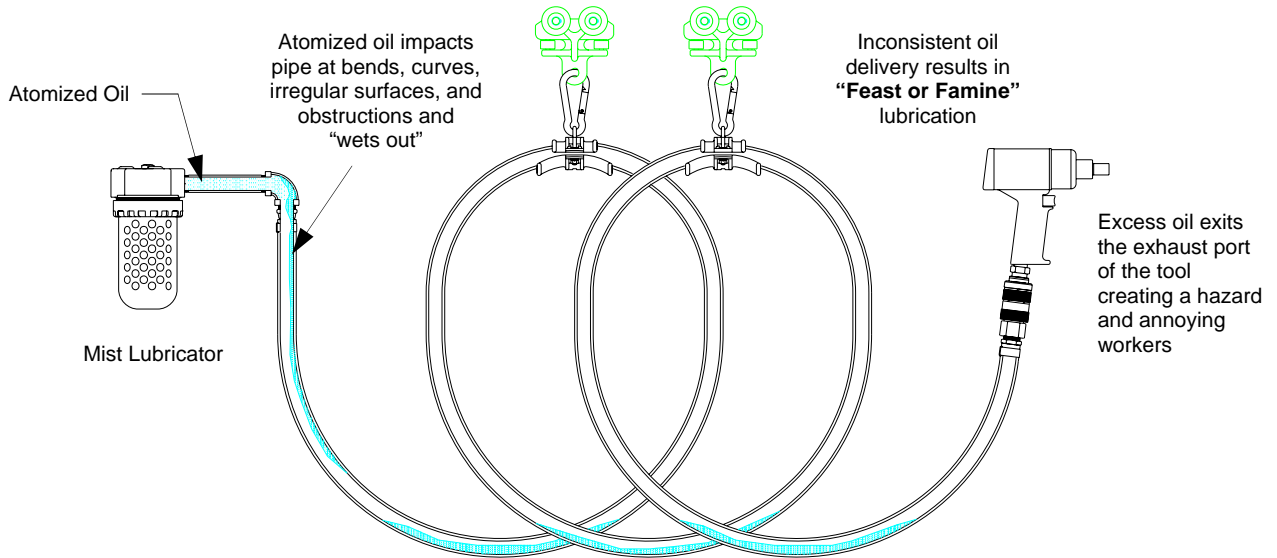
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ACUMEN TECHNOLOGIES, INC.

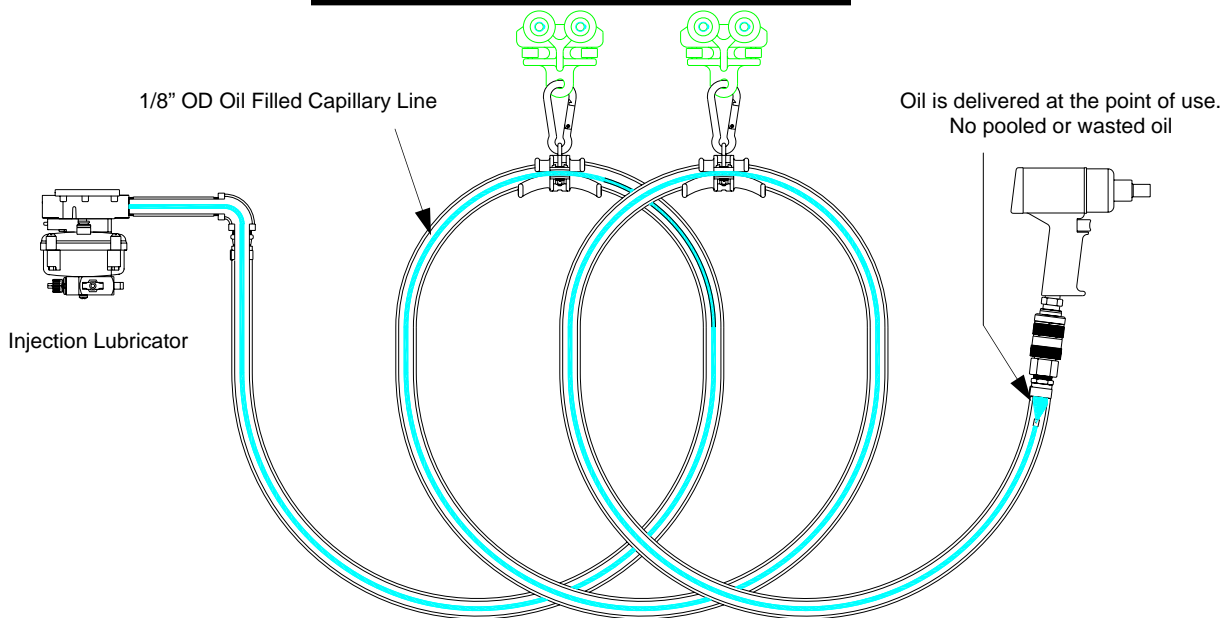
PNEUMATIC TOOL LUBRICATION

CONVENTIONAL "MIST" METHOD



Oil pools in the low spots until air pushes it out in large slugs

ACUMEN'S "INJECTION" METHOD



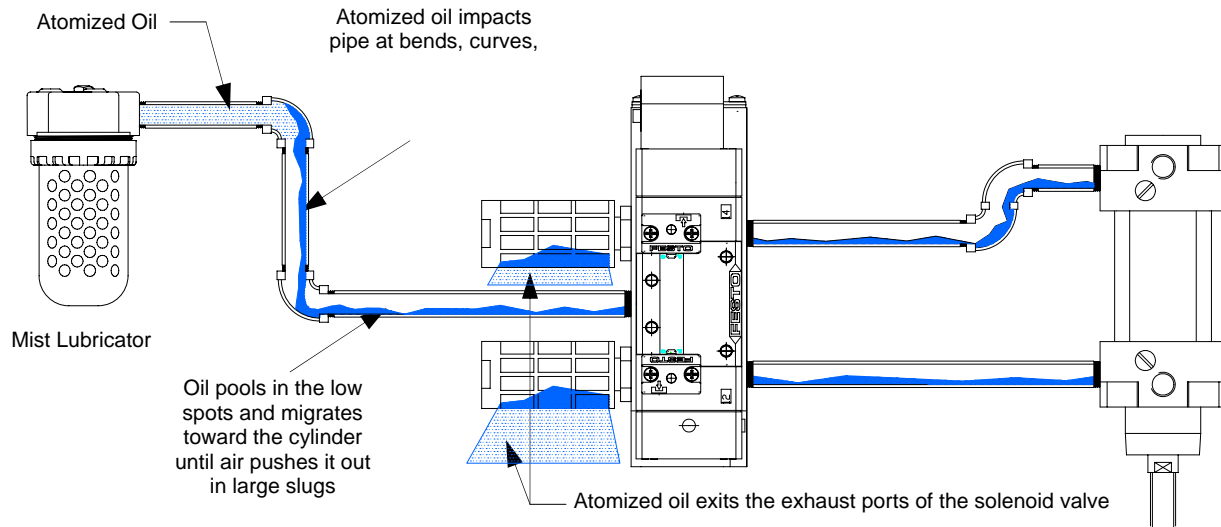
Consistent lubrication results in consistent torque and tool performance



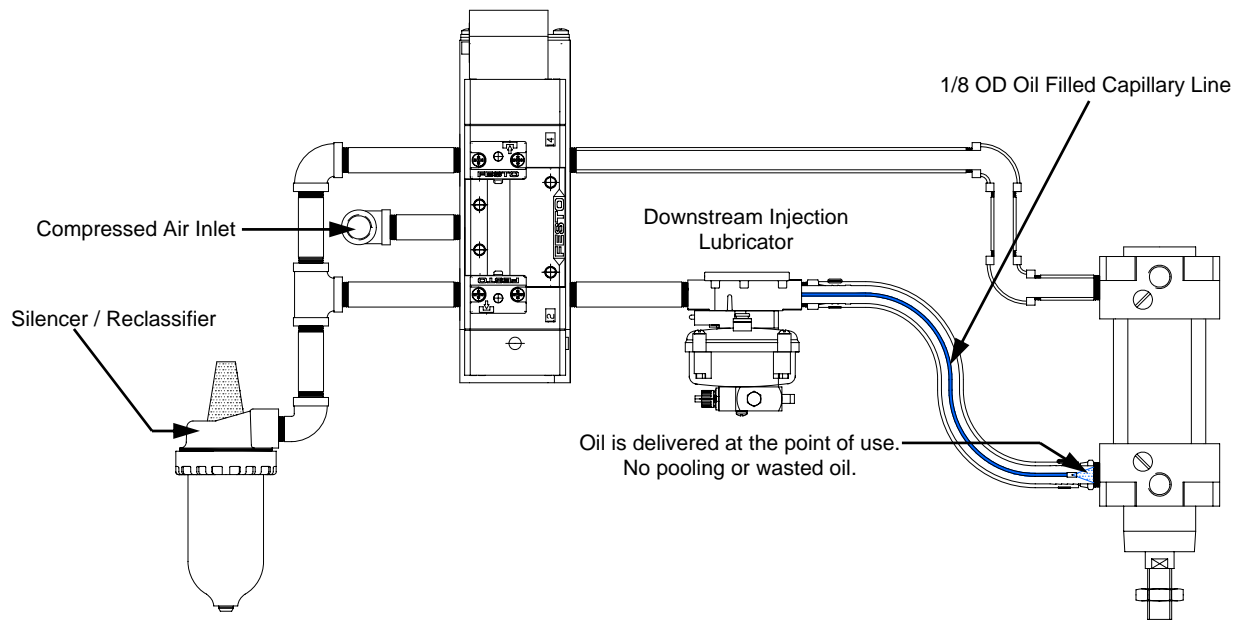
ACUMEN TECHNOLOGIES, INC.

CYLINDER LUBRICATION

CONVENTIONAL "MIST" METHOD



ACUMEN'S "DOWNSTREAM INJECTION" METHOD

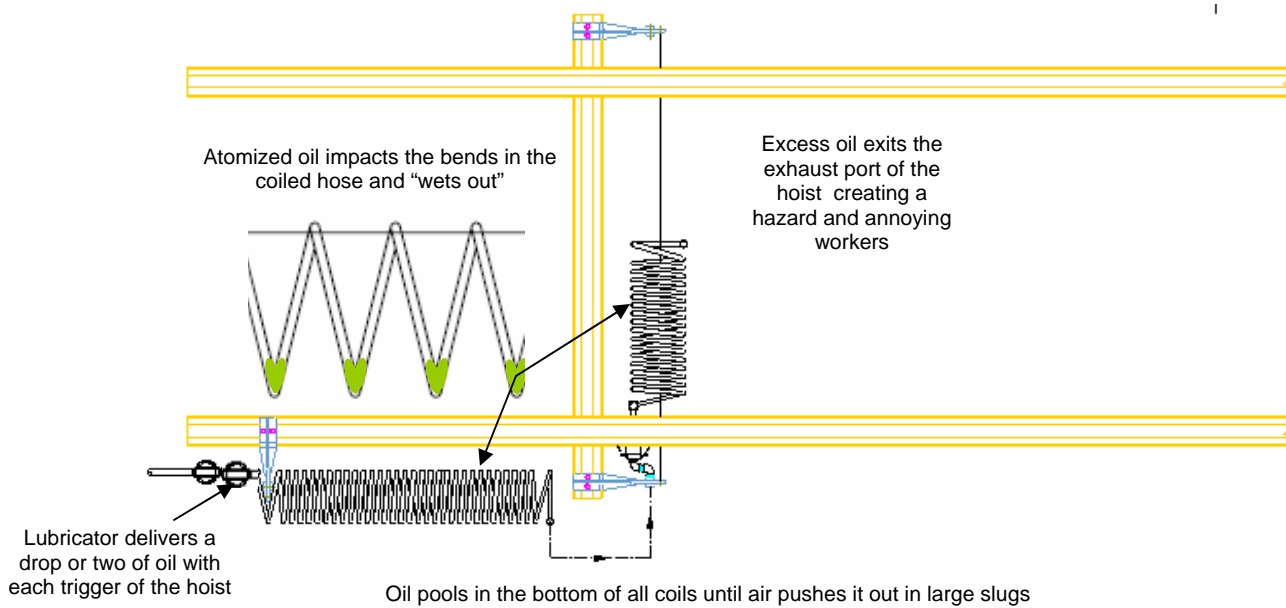




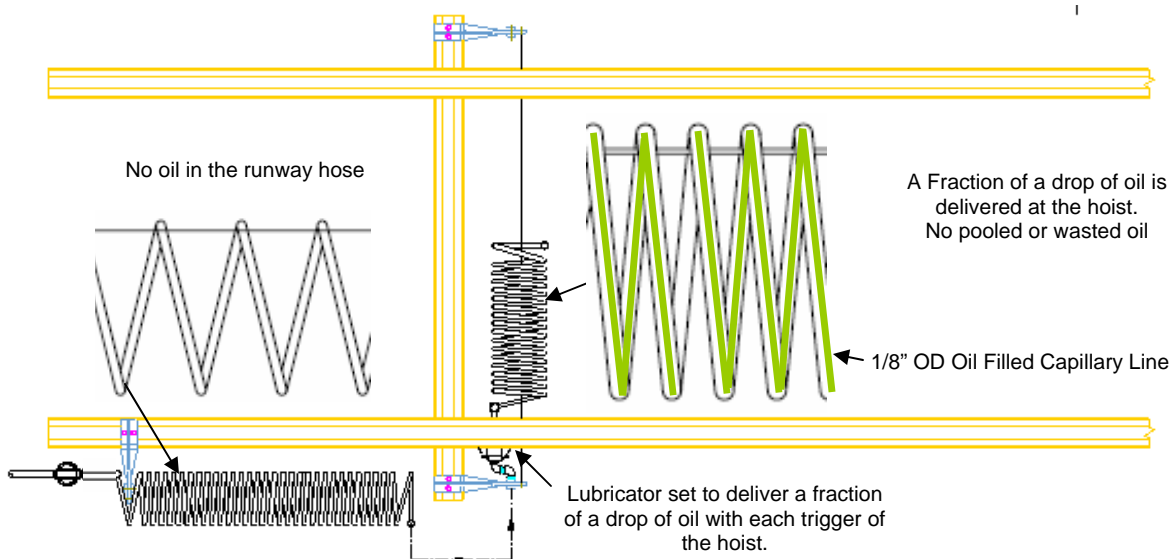
ACUMEN TECHNOLOGIES, INC.

HOIST LUBRICATION

CONVENTIONAL "MIST" METHOD



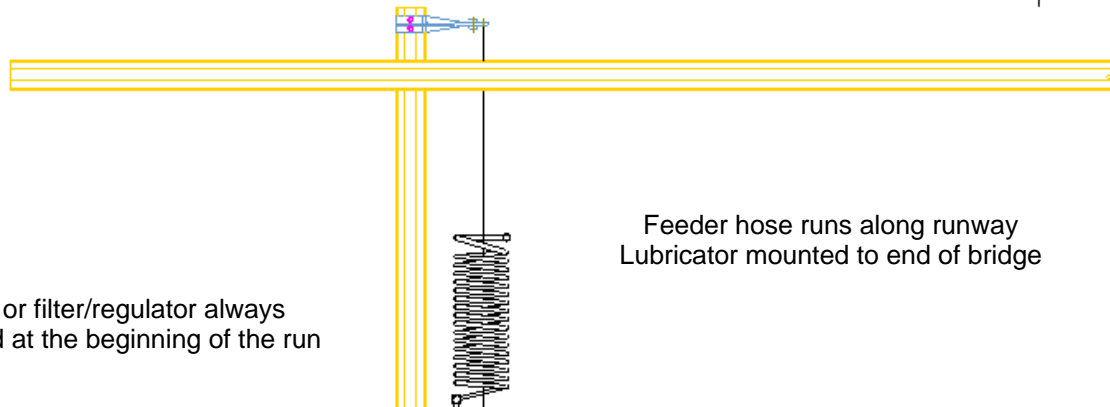
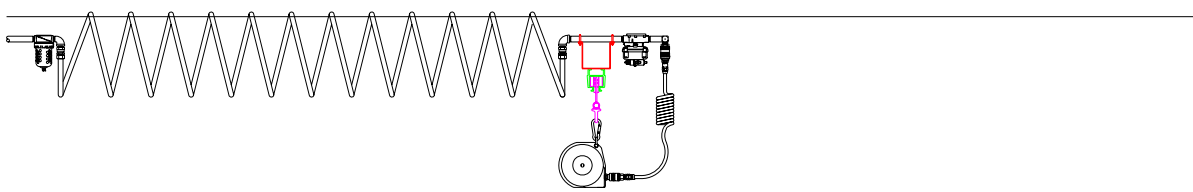
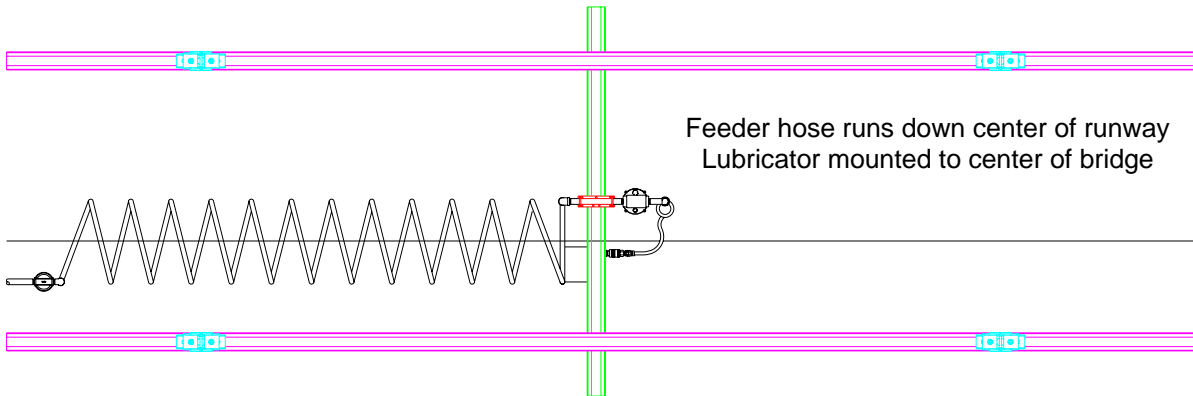
ACUMEN'S "INJECTION" METHOD



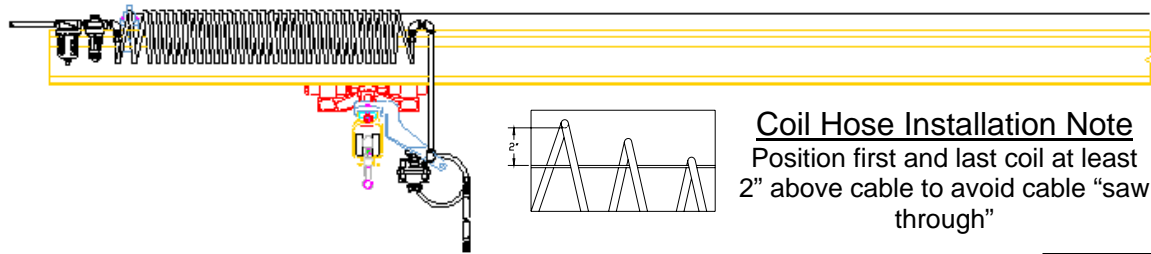


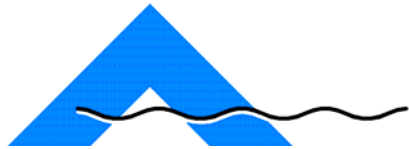
ACUMEN TECHNOLOGIES, INC.

TYPICAL HOIST HOOK-UPS—SINGLE POINT LUBRICATION



Filter or filter/regulator always mounted at the beginning of the run

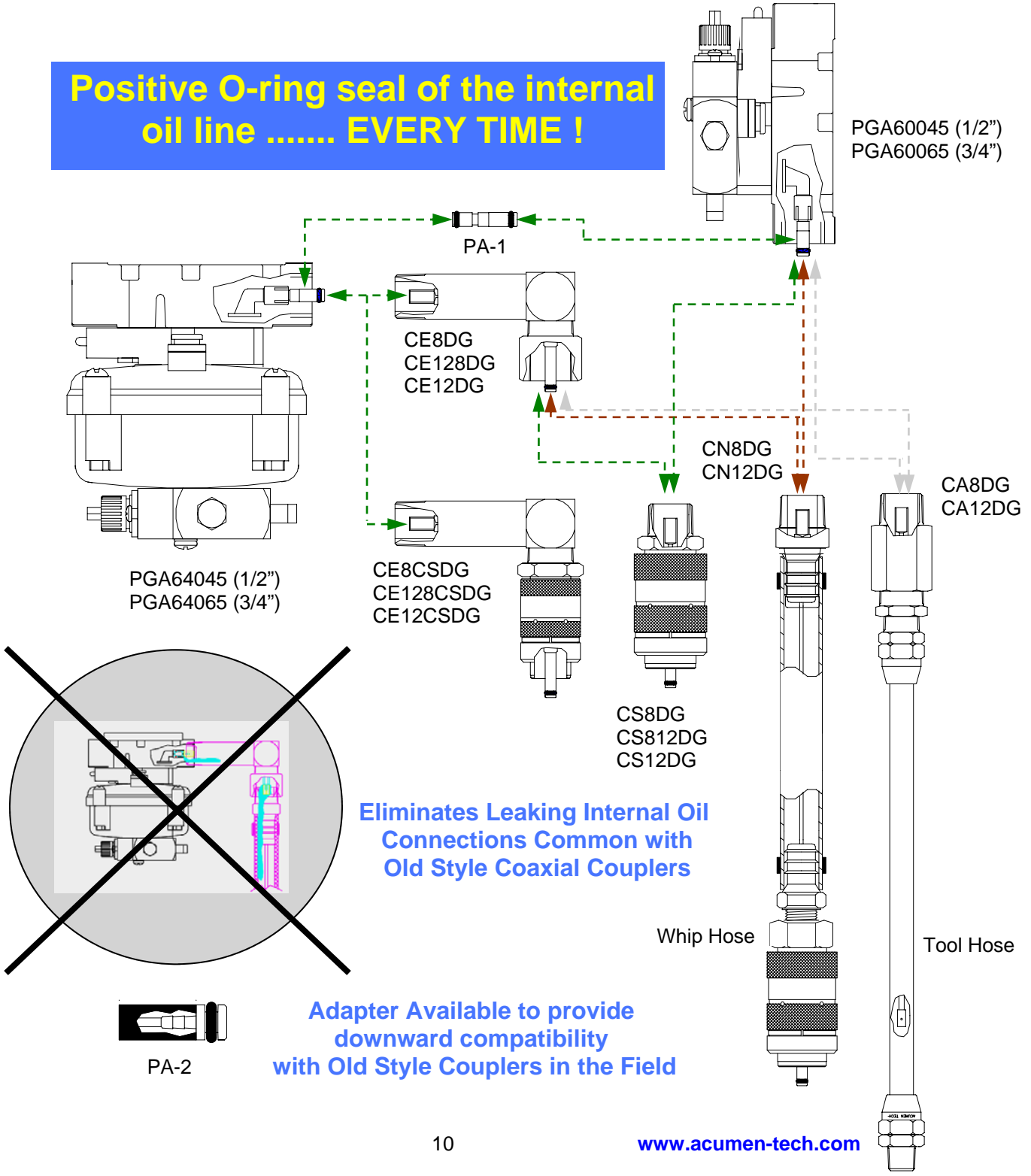




ACUMEN TECHNOLOGIES, INC.

ACUMEN GOLD STANDARD COAXIAL CONNECTIONS

Positive O-ring seal of the internal oil line EVERY TIME !

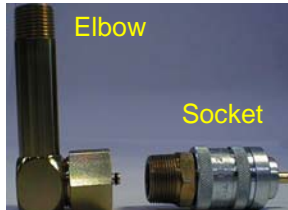


ACUMEN GOLD STANDARD COAXIAL CONNECTIONS

Positive O-ring seal of the internal oil line every time !

| | |
|-------------|-----------------------------------|
| Size | 90° Elbow |
| 1/2 - 1/2 | CE8DG |
| 3/4 - 1/2 | CE128DG |
| 3/4 - 3/4 | CE12DG |
| Size | Combination Elbow / Socket |
| 1/2 - 1/2 | CE8CSDG |
| 3/4 - 1/2 | CE128CSDG |
| 3/4 - 3/4 | CE12CSDG |

Acumen's 90° coaxial elbows are available in various sizes with and without integral quick connect



Above shows 90° Elbow and Direct Connect Socket separately. Above Right shows Combination Styles.



Gold Standard Adapters

PA-1

PA-2

| Series Size | Thread Size | Plug | Socket Direct Connect | Socket Indirect Connect Male | Socket Indirect Connect Female |
|-------------|-------------|--------|-----------------------|------------------------------|--------------------------------|
| 1/2 | 1/2 | CP8G | CS8DG | CS8 | CSF8 |
| 1/2 | 3/4 | | CS812DG | CS812 | CSF812 |
| 3/4 | 1/2 | CP128G | | | |
| 3/4 | 3/4 | CP12G | CS12DG | CS12 | CSF12 |

Coaxial plugs and sockets allow you to simultaneously connect & disconnect the air / oil line under a zero pressure condition. Coaxial sockets are available for direct connection (**D**) to either the SPL or our coaxial elbow connected to the lubricator.



| Adapter | Size | Hose Nipple |
|---------|------|-------------|
| CA8DG | 1/2 | CN8DG |
| CA12DG | 3/4 | CN12DG |

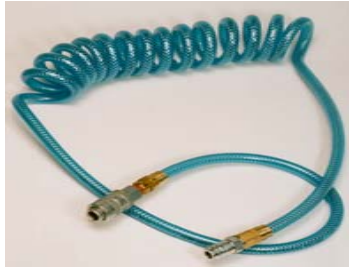
Our adapters are designed to couple coaxial hoses to either the SPL or our coaxial 90° elbow, directly..... without handling the internal capillary oil line.



Contact your authorized distributor for information on our probe adapters which allow you to use our **state-of-the-art** products with older technology in the field.

COAXIAL HOSE ASSEMBLIES

All hoses offered by Acumen Technologies, Inc are available as complete coaxial assemblies. These assemblies can be produced with your choice of hose style and fitting configurations and come complete with built-in prefilled oil line and check valve.



THC-12701-615-CP8G-DPA

THC-22701-615-CP8G-DCA

WHC-10707-1224-CN12DG-CS12

HOW TO ORDER

THC - 2 27 02 - 6 15 - CP8G - DPA

THC - Used for all Coaxial Tool Hose Assemblies

WHC - Used for all Coaxial Whip Hose Assemblies

Configuration

- 1 - STRAIGHT
- 2 - COILED

Color Code Key

27 - TRANSPARENT BLUE

CONSULT THE FACTORY FOR AVAILABLE CHOICES AND LEAD TIMES OF OTHER COLORS

Hose Type

- | | |
|--------------------------|-------------------------|
| 01 - REINFORCED URETHANE | 06 - PVC |
| 02 - URETHANE | 07 - NON-STRETCH |
| 03 - NYLON | 09 - PREMIUM AIR HOSE |
| 05 - GENERAL PURPOSE AIR | 10 - SOFT TAIL URETHANE |

HOSE SIZE - In 16ths

HOSE LENGTH - THC: Feet WHC: Inches

Upstream Connection

- | | | |
|------------------------|------------------------------------|--------------------------------|
| M08S - 1/2 MALE SWIVEL | CN8D - 1/2 COAX MALE DIRECT | CA8DG - 1/2 GOLD COAX ADAPTER |
| M08R - 1/2 MALE RIGID | CN12D - 3/4 COAX MALE DIRECT | CA12DG - 3/4 GOLD COAX ADAPTER |
| M12S - 3/4 MALE SWIVEL | CN8DG - 1/2 GOLD COAX MALE DIRECT | CP8G - 1/2 GOLD COAX PLUG |
| M12R - 3/4 MALE RIGID | CN12DG - 3/4 GOLD COAX MALE DIRECT | CP12G - 3/4 GOLD COAX PLUG |

Downstream Connection

- | | | |
|---------------------|------------------------|------------------------|
| DC0 - DC SERIES 1/4 | M04R - 1/4 MALE RIGID | CS8 - 1/2 COAX SOCKET |
| DCA - DC SERIES 3/8 | M04S - 1/4 MALE SWIVEL | CS12 - 3/4 COAX SOCKET |
| DC2 - DC SERIES 1/2 | M06R - 3/8 MALE RIGID | ISC06 - 1/4 PREVOST |
| DC3 - DC SERIES 3/4 | M06S - 3/8 MALE SWIVEL | ISC08 - 3/8 PREVOST |
| DPA - DP SERIES 3/8 | M08R - 1/2 MALE RIGID | |
| DP2 - DP SERIES 1/2 | M08S - 1/2 MALE SWIVEL | |
| ST06 - STAUBLI 1/4 | M12R - 3/4 MALE RIGID | |
| ST08 - STAUBLI 3/8 | M12S - 3/4 MALE SWIVEL | |

STANDARD HOSE ASSEMBLIES

Acumen Technologies, Inc offers both straight and coiled hose assemblies for a variety of applications including feeding air to traveling air stations with and without central fill oil systems, and pneumatic lines to hoists and balancers.



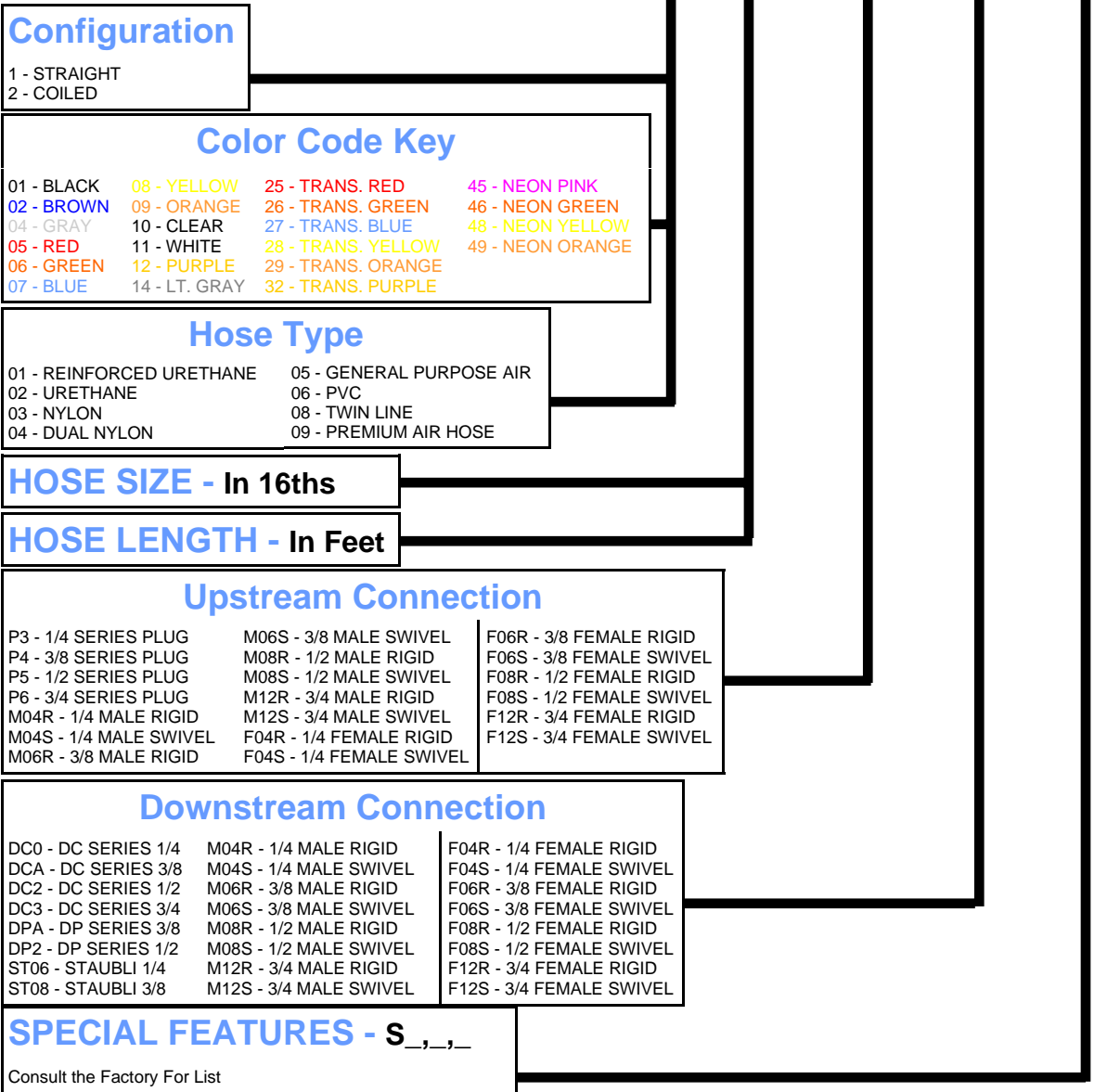
10708-830-M08S-M08S-S3



20703-625-M06S-M06S

HOW TO ORDER

2 07 04 - 8 25 - P5 - DC2 - S3



POLYBRAID AIR HOSE

ACUMEN TECHNOLOGIES' Polybraided innerbraided urethane hoses are the new advanced generation of ether based polyurethane. Working pressure capabilities are increased with the addition of a tough Dacron® Polyester® innerbraid reinforcement. The new compound formulation is our most flexible ever, allowing even smaller coil diameters than our standard unreinforced urethane

ADVANTAGES

- Very lightweight and easy to handle
- The most abrasion resistant hose available
- Very kink resistant
- Very flexible and user friendly, even in subzero temperatures
- Resistant to oils and greases
- Non-marring to auto finishes
- UV stabilized for long service life.
- Tough and resistant to constant flexing
- Standard transparent blue allowing visual inspection of internal oil line.
- Coiled hose working length is 80% of the actual length.



22701-625-36/18



12701-6

TOUGH FROM THE INSIDE OUT

Polyurethane is one tough plastic, used in everything from skateboard wheels to auto bumpers. Our Polybraided retractable hose is the ideal choice for tough air tool requirements.

HOW TO ORDER

| ID | LENGTH | PART NUMBER | WORKING PRESSURE @75 DEG F | WEIGHT |
|------|---------------|-----------------|----------------------------|-------------------|
| 5/16 | 250 FOOT BULK | 12701-5 | 200 PSI | 3.9 lbs Per C FT |
| 3/8 | 400 FOOT BULK | 12701-6 | 200 PSI | 7.5 lbs. Per C FT |
| 1/2 | 300 FOOT BULK | 12701-8 | 200 PSI | 12 lbs. Per C FT |
| 5/16 | 15 FOOT | 22701-515-36/18 | 200 PSI | 3.9 lbs Per C FT |
| 5/16 | 20 FOOT | 22701-520-36/18 | 200 PSI | 3.9 lbs Per C FT |
| 5/16 | 25 FOOT | 22701-525-36/18 | 200 PSI | 3.9 lbs Per C FT |
| 3/8 | 15 FOOT | 22701-615-36/18 | 200 PSI | 7.5 lbs. Per C FT |
| 3/8 | 20 FOOT | 22701-620-36/18 | 200 PSI | 7.5 lbs. Per C FT |
| 3/8 | 25 FOOT | 22701-625-36/18 | 200 PSI | 7.5 lbs. Per C FT |
| 1/2 | 15 FOOT | 22701-815-36/18 | 200PSI | 13 lbs. Per C FT |
| 1/2 | 20 FOOT | 22701-820-36/18 | 200 PSI | 13 lbs. Per C FT |
| 1/2 | 25 FOOT | 22701-825-36/18 | 200 PSI | 13 lbs. Per C FT |

COILED HOSES STANDARD WITH 36" AND 18" STRAIGHT TAILS
SPECIAL TAILS AVAILABLE UPON REQUEST

POLYTHANE AIR HOSE

ACUMEN TECHNOLOGIES' Polythane unreinforced polyurethane hose is an increasingly popular choice for pneumatic applications. Also known as urethane (PUR), Polythane hose has over twice the tensile strength of vinyl and one-third the weight of rubber making it ideal for air tool applications up to 125 PSI. Polythane hose retains its lively rubberlike feel and excellent flexibility over long periods of time.



22702-625-36/18

EXCEPTIONAL WEAR AND KINK RESISTANCE

You can cut an ACUMEN TECHNOLOGIES' Polythane hose with a sharp knife but it shrugs off normal wear up to 10 times better than other hose. Most oils and fuels will not affect it. And you can't permanently kink Polythane hose. The kind of abuse that destroys other recoil air hose doesn't even make a dent in ours. Spring guards are not required.



12702-6

Color Code Key 27 - TRANSPARENT BLUE

CONSULT THE FACTORY FOR AVAILABLE CHOICES AND LEAD TIMES OF OTHER COLORS

HOW TO ORDER

| ID | LENGTH | PART NUMBER | WORKING PRESSURE @75 DEG F | WEIGHT |
|------|---------------|-----------------|----------------------------|-------------------|
| 1/4 | 500 FOOT BULK | 12702-4 | 147 PSI | 3.4 lbs Per C FT |
| 5/16 | 250 FOOT BULK | 12702-5 | 133 PSI | 3.9 lbs Per C FT |
| 3/8 | 200 FOOT BULK | 12702-6 | 133 PSI | 7.5 lbs. Per C FT |
| 1/2 | 150 FOOT BULK | 12702-8 | 133 PSI | 12 lbs. Per C FT |
| 5/16 | 15 FOOT | 22702-515-36/18 | 133 PSI | 3.9 lbs Per C FT |
| 5/16 | 20 FOOT | 22702-520-36/18 | 133 PSI | 3.9 lbs Per C FT |
| 5/16 | 25 FOOT | 22702-525-36/18 | 133 PSI | 3.9 lbs Per C FT |
| 3/8 | 15 FOOT | 22702-615-36/18 | 133 PSI | 7.5 lbs. Per C FT |
| 3/8 | 20 FOOT | 22702-620-36/18 | 133 PSI | 7.5 lbs. Per C FT |
| 3/8 | 25 FOOT | 22702-625-36/18 | 133 PSI | 7.5 lbs. Per C FT |
| 1/2 | 15 FOOT | 22702-815-36/18 | 133 PSI | 13 lbs. Per C FT |
| 1/2 | 20 FOOT | 22702-820-36/18 | 133 PSI | 13 lbs. Per C FT |
| 1/2 | 25 FOOT | 22702-825-36/18 | 133 PSI | 13 lbs. Per C FT |

ITEMS SHOWN ABOVE ARE IN STOCK
OTHER SIZES, LENGTHS, AND COLORS ARE AVAILABLE UPON REQUEST

POLYTHANE SOFT TAIL COILED AIR HOSE

ACUMEN TECHNOLOGIES' Polythane unreinforced polyurethane hose with a 70duro soft tail is an increasingly popular choice for pneumatic applications. This soft tail is extremely lightweight and flexible and will not mar painted finishes. Excellent ergonomic solution for automotive assembly line pneumatic tools. The mender joining the soft tail is full flow to provide maximum air flow with minimum pressure drop.

ADVANTAGES

- Very lightweight and easy to handle
- The most abrasion resistant hose available
- Very kink resistant
- Very flexible and user friendly, even in subzero temperatures
- Resistant to oils and greases
- Non-marring to auto finishes
- UV stabilized for long service life.
- Tough and resistant to constant flexing
- Standard transparent blue allowing visual inspection of internal oil line.
- Coiled hose working length is 80% of the actual length.
- Full flow mender and hose ends



EXCEPTIONAL WEAR AND KINK RESISTANCE

You can cut an ACUMEN TECHNOLOGIES' Polythane hose with a sharp knife but it shrugs off normal wear up to 10 times better than other hose. Most oils and fuels will not affect it. And you can't permanently kink Polythane hose. The kind of abuse that destroys other recoil air hose doesn't even make a dent in ours. Spring guards are not required.

Color Code Key 27 - TRANSPARENT BLUE

CONSULT THE FACTORY FOR AVAILABLE CHOICES
AND LEAD TIMES OF OTHER COLORS

HOW TO ORDER

| ID | LENGTH | PART NUMBER | WORKING PRESSURE @75 DEG F | WEIGHT |
|-----|---------|----------------------|-------------------------------|-------------------|
| 3/8 | 15 FOOT | 22702-615-36/18-S498 | 133 PSI | 7.5 lbs. Per C FT |
| 3/8 | 20 FOOT | 22702-620-36/18-S498 | 133 PSI | 7.5 lbs. Per C FT |
| 3/8 | 25 FOOT | 22702-625-36/18-S498 | 133 PSI | 7.5 lbs. Per C FT |
| 1/2 | 15 FOOT | 22702-815-36/18-S498 | 133 PSI | 13 lbs. Per C FT |
| 1/2 | 20 FOOT | 22702-820-36/18-S498 | 133 PSI | 13 lbs. Per C FT |
| 1/2 | 25 FOOT | 22702-825-36/18-S498 | 133 PSI | 13 lbs. Per C FT |

ITEMS SHOWN ABOVE ARE IN STOCK
OTHER SIZES, LENGTHS, AND COLORS ARE AVAILABLE UPON REQUEST

PREMIUM AIR HOSE

Designed for use with push-on or standard fittings at working pressures of 300 PSI. Its lightweight feature makes it an ideal hose for air tool and festooning applications.

FEATURES

- Lightweight
- Silicone free core and cover
- Cold weather flexibility
- Complies with RMA's Class B designation for oil resistance
- Non-marring to auto finishes
- UV stabilized for long service life.
- Chemical resistance of synthetic rubber
- Tough and resistant to constant flexing
- Available in blue. red. black. green. and gray



CONSTRUCTION

- Cover - Various colors, oil, weather and abrasion resistant synthetic rubber
- Reinforcement - One braid of high strength synthetic yarn laid at the most effective angle for maximum strength and coupling holding ability
- Tube - Seamless, oil and heat resistant

Color Code Key

- 01 - BLACK
- 04 - GRAY
- 05 - RED
- 07 - BLUE
- 06 - GREEN

SERVICE TEMPERATURE

- -40 deg F (-40 deg C) to +200 deg F (+93.3 deg C)



HOW TO ORDER

STOCK HOSES

| ID | LENGTH | PART NUMBER | WORKING PRESSURE @75 DEG F | WEIGHT |
|-----|---------------|-------------|----------------------------|------------------|
| 3/8 | 500 FOOT BULK | 10709-6 | 300 PSI | 11 lbs. Per C FT |
| 1/2 | 500 FOOT BULK | 10709-8 | 300 PSI | 15 lbs. Per C FT |
| 3/4 | 500 FOOT BULK | 10709-12 | 300 PSI | 24 lbs Per C FT |

NYLON AIR HOSE

The original nylon air hose produced for *Acumen Technologies, Inc.* by Nycoil. This hose sets the standard for the industry and is most commonly used for delivering air to moveable hoists, balancers, and air preparation units. Hose can be suspended directly from tool rail or strung along a nylon coated cable.

FEATURES

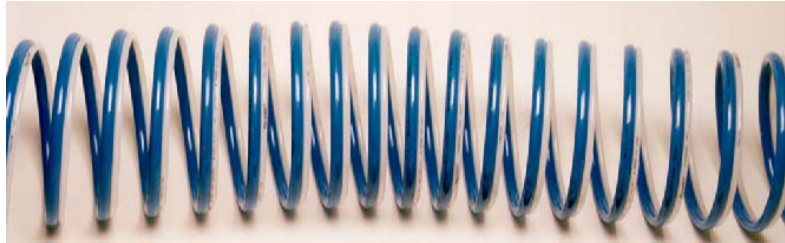
- Extremely Lightweight
- Resistant to most chemicals
- Highly flexible Nylon 12
- Less than 1% moisture absorption
- Excellent memory and coil retractability
- More abrasion resistant than rubber hose
- Brass swivel compression fittings on both ends prevents hose from twisting and tangling

SPECIFICATIONS

- **Recommended Maximum working length:** 50% of total linear length
- **Temp. range:** -20 deg F to +180 deg F
- **Working pressure:** 200 PSI
- **Range of coil sizes:** 1/8" to 1-1/4"



20503-8



20704-8

HOW TO ORDER

2 07 03 - 8

Configuration

- 1 - STRAIGHT
- 2 - COILED

Color Code Key

- 05 - RED
- 07 - BLUE
- 08 - YELLOW

Hose Type

- 03 - NYLON
- 04 - DUAL BOND

HOSE SIZE - In 16ths

NYLON CAPILLARY TUBING



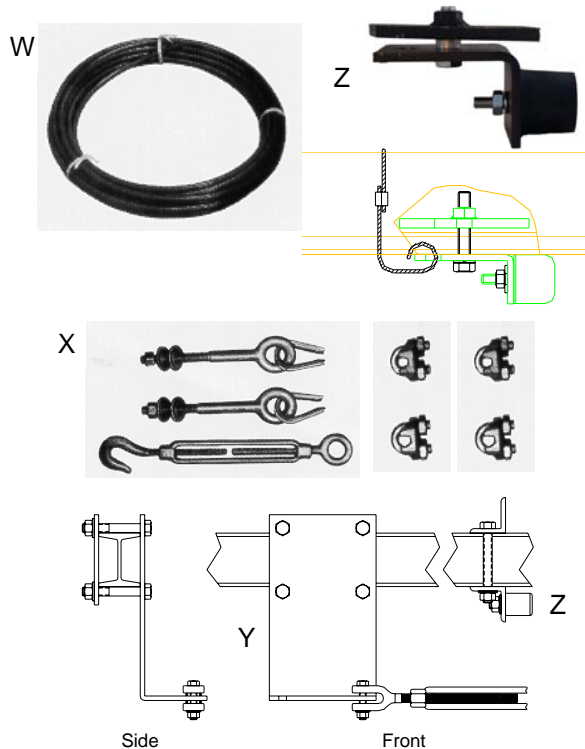
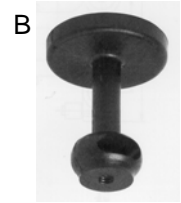
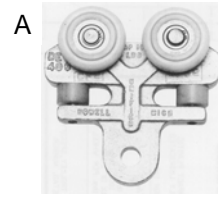
11003-1-S1

Acumen Technologies, Inc. provides NYCOIL'S 1/8" OD Nylon tubing in 1000 foot spools prefilled with oil for use in coaxial hose assemblies.

FEEDER HOSE ACCESSORIES

Festoon Hose Accessories

| Part Number | Fig. | Description |
|-------------|------|------------------------------------|
| FHP495A | A | Trolley for ETA-4 |
| FHP477 | B | Tag Line Slider for ETA-4 |
| FHP325 | C | Trolley for 3.25" Flange Flat Rail |
| FHP233 | C | Trolley for 2.33" Flange 3" I-Beam |
| FHP266 | C | Trolley for 2.66" Flange 4" I-Beam |
| FHP250-B | D | Trolley for 3" and 4" I-Beam |
| FHP9792 | D | Webb Trolley |
| FHPA7A | E | Hollywood Rail Trolley |
| FHP321201 | F | 3" I-Beam Trolley |
| FHP421201 | F | 4" I-Beam Trolley |
| FHP102 | G | Johnson / Unistrut Trolley |
| FHP2450 | | Snap Hook 3/8" |
| FHP98032544 | B | KBK I Slider |
| FHP90232544 | B | KBK II Slider |
| FHP20133-16 | H | Saddle Clamp, Small 10mm -16mm |
| FHP20133-25 | H | Saddle Clamp, Medium 17mm -25mm |
| FHP20133-36 | H | Saddle Clamp, Large 26mm -36mm |



Coiled Hose Accessories

| Description | Fig. | Part Number |
|----------------------------------|------|-------------|
| Cable Trolley - Double Wheel | | FHP21116 |
| 1/4" OD Clear Nylon Coated Cable | W | FHP98300 |
| 6" Hook & Eye Cable Kit | X | FHP98320 |
| 6" Jaw & Eye Cable Kit | | FHP98322 |
| 12" Hook & Eye Cable Kit | X | FHP98321 |
| 12" Jaw & Eye Cable Kit | | FHP98323 |
| 4" I-Beam Bracket | Y | FHPBRKT4 |
| 4" Mid-Rail Stop for ETA4 | Z | MRSE |

FESTOON CABLE TROLLEYS

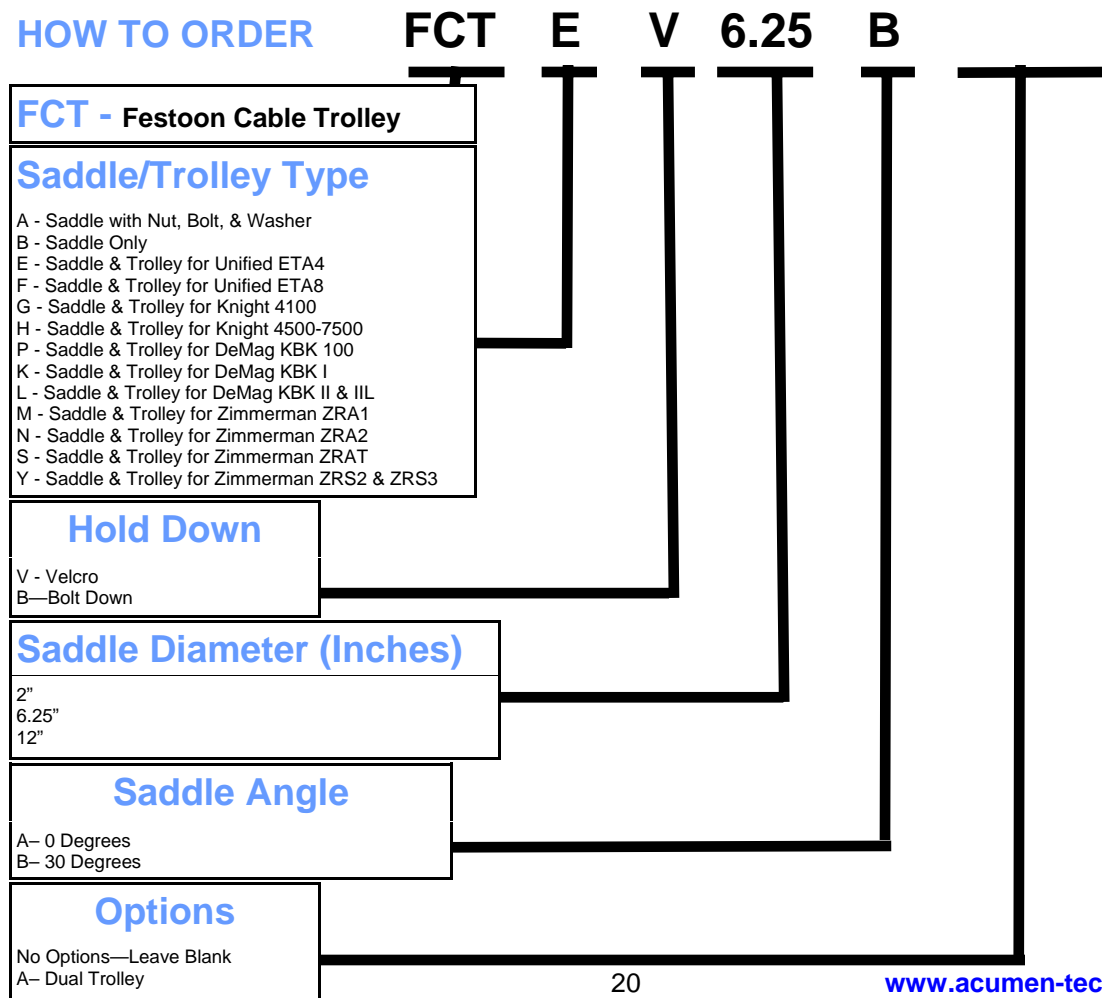
ACUMEN TECHNOLOGIES' Manufactures an assortment of hose and cable saddles which are designed to fit every manufacturer's tool rail. Our unique design helps to provide an orderly festooning of your DC cable or air hose minimizing wear and tear. The saddles are positioned at a 30 degree angle to the tool rail which allows the hose or cable to store neatly in the home position and take up minimal space.

ADVANTAGES

- Velcro straps make for easy install and removal of the hose or cable
- 30 degree angle allows hose or cable loops to ride side by side reducing strain and increasing hose or cable life
- Universal saddle can be attached to most existing customer trolleys
- Foam rubber padding reduces wear on hose or cable
- Saddles available in 2", 6.25", and 12" radius to suit cable maximum bend radius requirements
- No nuts and bolts or other small parts to lose during cable or hose change out

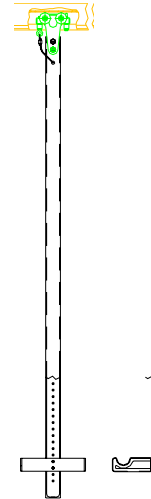


HOW TO ORDER



TOOL HOSE ACCESSORIES

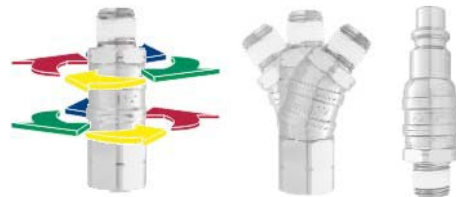
| Part Number | Description |
|-----------------|---|
| TS-6C | Tool Support - 6" Cage |
| TS-6CW | Tool Support - 6" Cage w/ Clamps |
| TS-8C | Tool Support - 8" Cage |
| TS-8CW | Tool Support - 8" Cage w/ Clamps |
| TS-1J | Tool Support 'J' Type |
| TS-2J | Tool Support - Double 'J' Type |
| TS-10J | Tool Support - "Cradle" Type |
| TSBE72E1 | Tool Support - "Cradle" Type With 72" bar and FTE trolley |



| Description | Part Number |
|--|------------------|
| Surface Finish Protector, Small (Fits DCO) | FP2 |
| Surface Finish Protector, Large (Fits DCA & DC2) | FP3 |
| Surface Finish Protector—ISC08 (Fits 3/8" Hose) | NSB08-N |
| Surface Finish Protector—ISC08 (Fits 1/2" Hose) | 295000481 |

Part Number Description

| | |
|--------------------|--|
| 94300 | Composite Dyna Swivel 1/4 |
| 190027 | Steel Dyna Swivel 3/8 |
| 190028 | Steel Dyna Swivel 1/2 |
| 190010 | Plastic Coated Dyna Swivel 3/8 Female x 1/4 Male |
| 190011 | Plastic Coated Dyna Swivel 3/8 Female x 3/8 Male |
| 190012 | Plastic Coated Dyna Swivel 1/2 Female x 1/2 Male |
| NFA-N2F-N2M | Free Angle Swivel 1/4 Female x 1/4 Male |
| NFAP-N2M-UA | Free Angle Swivel 1/4 Industrial Interchange Plug x 1/4 Male |
| NFAP-N2M-UB | Free Angle Swivel 3/8 Industrial Interchange Plug x 1/4 Male |
| NFAP-N3M-UB | Free Angle Swivel 3/8 Industrial Interchange Plug x 3/8 Male |

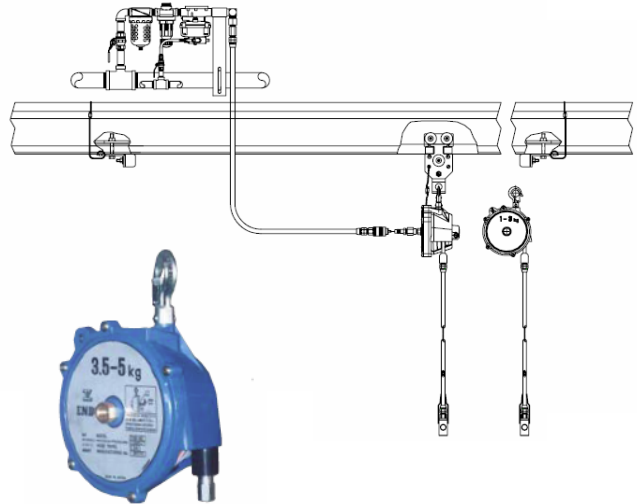


COAXIAL AIR TOOL BALANCERS

Acumen Technologies offers the only air tool balancer on the market capable of working with injection lubrication systems. Acumen's unique design allows the balancer to function without interfering with the internal oil line inside the balancer and hose.

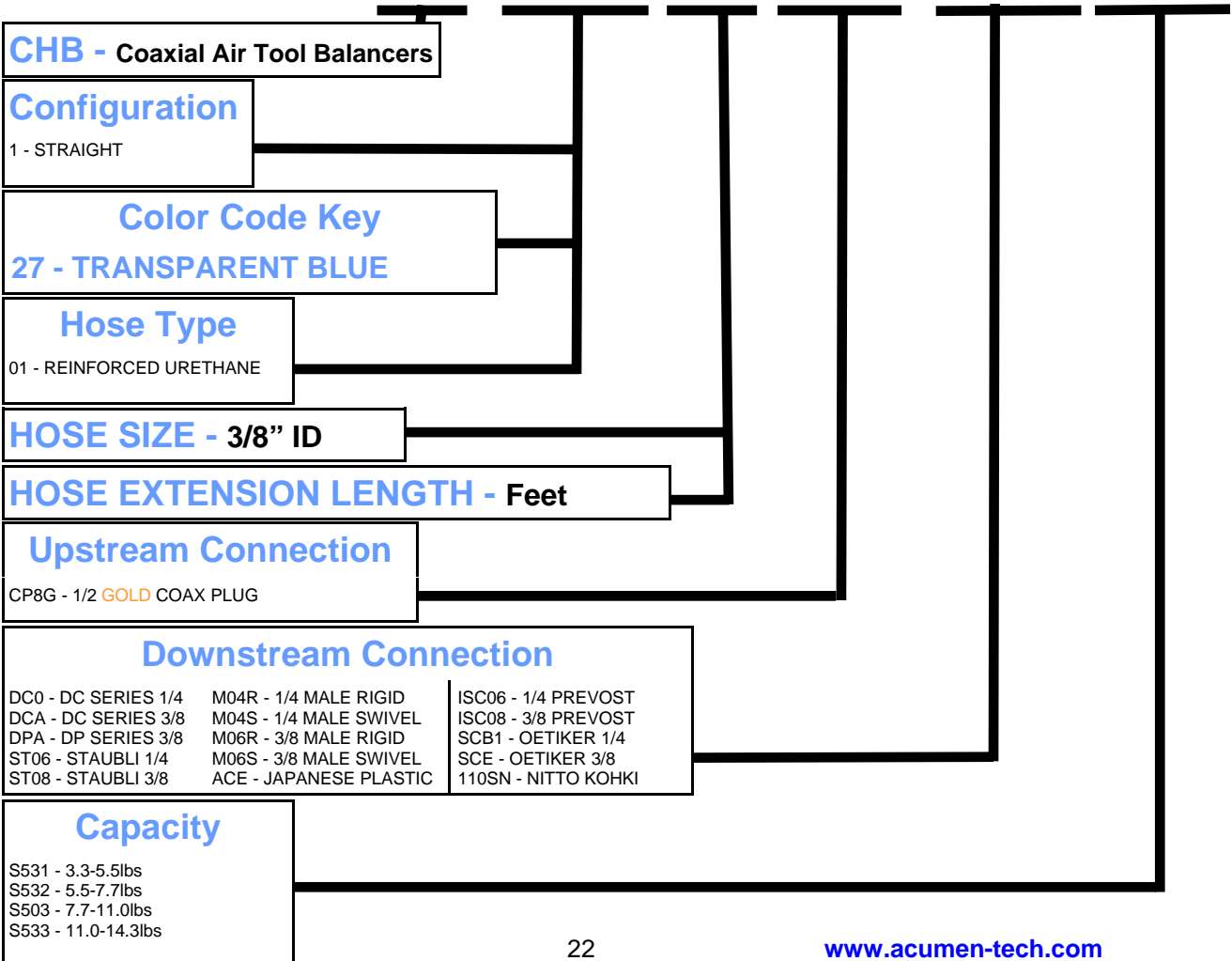
ADVANTAGES

- Eliminates the need for an air supply hose and a separate balancer
- True Zero Gravity with no drifting or strain
- Tapered drum, quality springs and bearings provides smooth hose travel throughout the 51.2 inch stroke
- Tension adjustment is easy and precise
- High impact ABS case and a forged metal hook
- Hose is non-marring to product finishes
- UV stabilized for long service life.
- Tough and resistant to constant flexing
- Standard transparent blue allowing visual inspection of internal oil line.



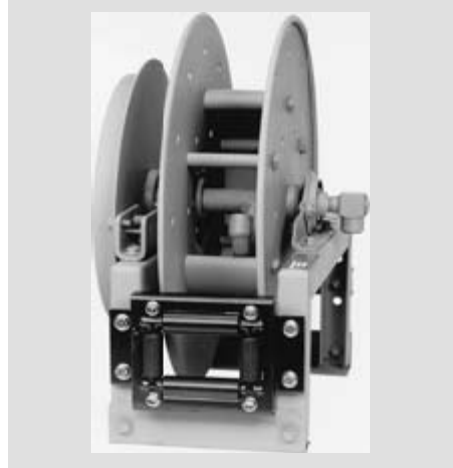
HOW TO ORDER

CHB - 12701 - 6 5 - CP8G - ISC08 - S532



COAXIAL HOSE REELS

Acumen Technologies, Inc. will manufacture coaxial hose reels for use with injection lubrication systems to your exact specifications. Our numerous hose styles and accessories are made to satisfy your plant requirements. Available with air preparation onboard or designed to accept your plant air from stationary FRL's off your header.



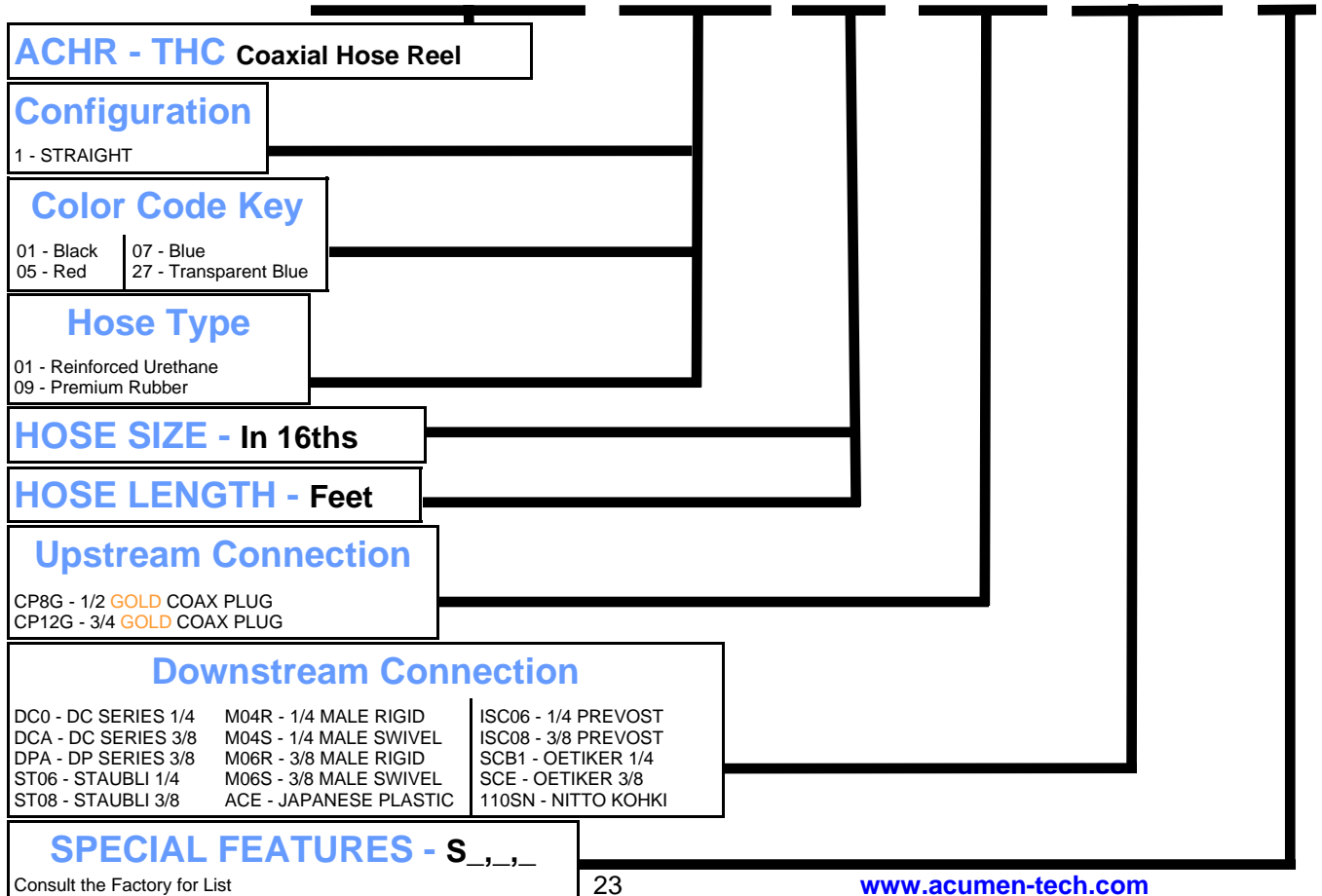
ACHR-THC-10709-840-CP12G-M08R-S320,467,468

Standard hose reel on pedestal with 40' of 1/2" general purpose coaxial air hose and air prep package.

We install oil lines in Hose Reels manufactured by Hannay or Reel Craft.

Specify Brand, Hose Size and Length, Fitting at the tool end, and CoAxial connection size at the inlet.

HOW TO ORDER ACHR - THC - 10709 - 820 - CP8G - M08R



LINE SIDE LIMOS

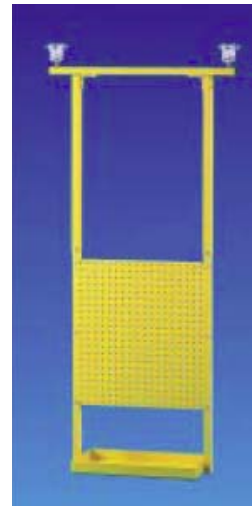
Acumen Technologies, Inc. manufactures traveling tool and parts carts to your exact specifications. Our numerous styles and accessories are made to satisfy your plant requirements. Available with air preparation onboard or stand alone without air.



The Limos above are manufactured from Creform tubing that can be fabricated to any height, width, and depth required and can include flat or tilted or adjustable shelves, tool holders, and pneumatic and/or electric power outlets. Limos can be designed to return to the home position manually or automatically.



Suitable for assembly environments with balancers, air hose reels,

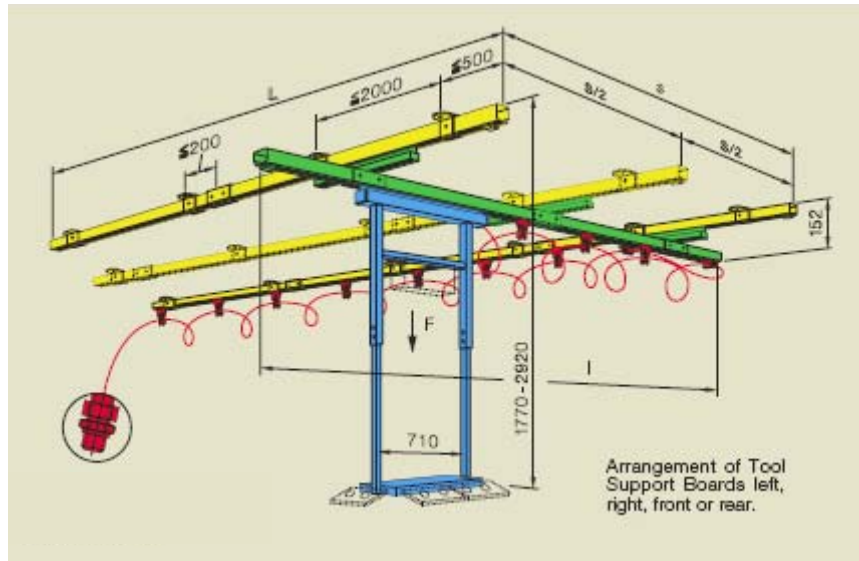


Suitable for tools and assembly materials

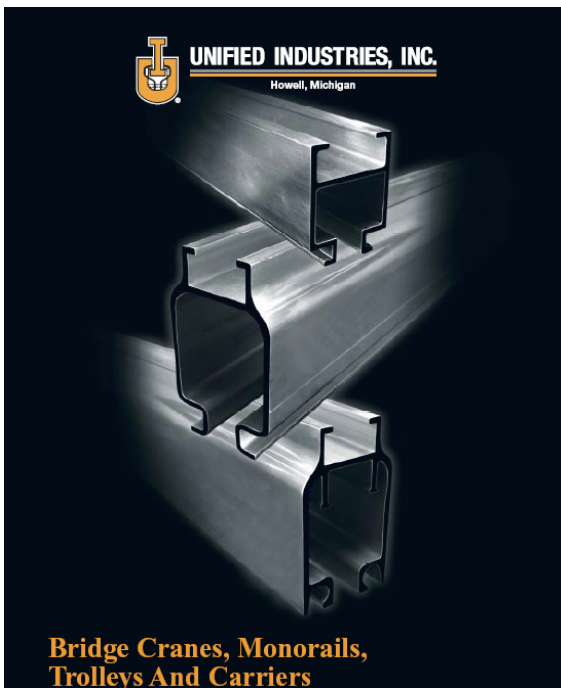
Designs limited only by the imagination. Tell us about your specific application.

Tool Rail

Single Track Underslung Crane with Tool Transporter



Unified Tool Rail



Aluminum Rail in 4" and 8" profiles with capacities up to 19,300lbs

AIR PREPARATION COMBO ORDERING CODE

Acumen Technologies, Inc specializes in the design and build of complete FRL assemblies for air preparation packages. Each part of the system is chosen to produce the best air preparation systems possible using the latest technology.

HOW TO ORDER

Model No. **APCG6 - 2 1 2 - 2 G E - 24BFS2**

APCG - Gold Standard Air Prep Combos

APC - Old Coax Air Preparation Combos

Size

- 2 - 1/4
- 3 - 3/8
- 4 - 1/2
- 6 - 3/4

Filter

- 1 - FD100
- 2 - FD100X
- X - NO FILTER

Regulator

- 1 - R100
- 2 - R150
- 3 - IR100-M85
- X - NO REGULATOR

Lubricator

- 1 - PA60045 OR PA60065
- 2 - PA64045 OR PA64065
- 3 - PA60041 OR PA60061
- 4 - PA64041 OR PA64061
- 5 - MIST LUBRICATOR
- X - NO LUBRICATOR

Number of Outlets

Suspension Options

- | | | |
|---------------------|------------------------|---------------------------|
| A - NO SUSPENSION | G - UNIFIED ETA4 | N - NO TROLLEYS |
| B - WELDING BRACKET | H - KBK I | P - PATENTED RAIL |
| C - CLEVIS | J - JOHNSON / UNISTRUT | Q - KBK II |
| D - HOLLYWOOD | K - WEBB 9792 | R - KNIGHT 4" |
| E - WAMPFLER | L - 4" I-BEAM | ALUMINUM |
| F - 3" I-BEAM | M - KNIGHT 4" STEEL | S_ - SPECIAL: Consult the |

Outlet Options

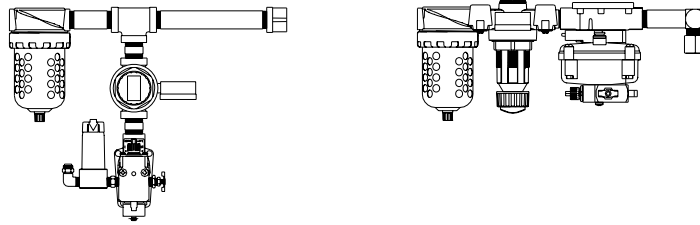
- A - 1/2 COAXIAL SOCKET
 - B - 3/4 COAXIAL SOCKET
 - C (LL)** - 1/2 WHIP HOSE WITH 1/2 SOCKET
 - D (LL)** - 3/4 WHIP HOSE WITH 1/2 SOCKET
 - E (LL)** - 3/4 WHIP HOSE WITH 3/4 SOCKET
 - X - NO OUTLET HOSE OR SOCKET
- ** (LL) = LENGTH IN INCHES

Base Assembly Options

- | | |
|----------------------------------|---------------------------------------|
| A - NO LOAD BAR | G - FOR CURVED RAIL |
| B - BALANCER BAR | H - QUICK DISCONNECT PLUG AT INLET |
| C - DROP BARS | S_ - SPECIAL: Consult the Factory for |
| D - EXTERNAL RESERVOIR - 10oz | List |
| E - EXTERNAL RESERVOIR - 1 QUART | |
| F - CENTRAL FILL ACCESSORIES | |

APC BASE ASSEMBLIES

Single Air Preparation Combo



SIZE

1/2

1/2

3/4

3/4

ASSEMBLY PART NUMBER

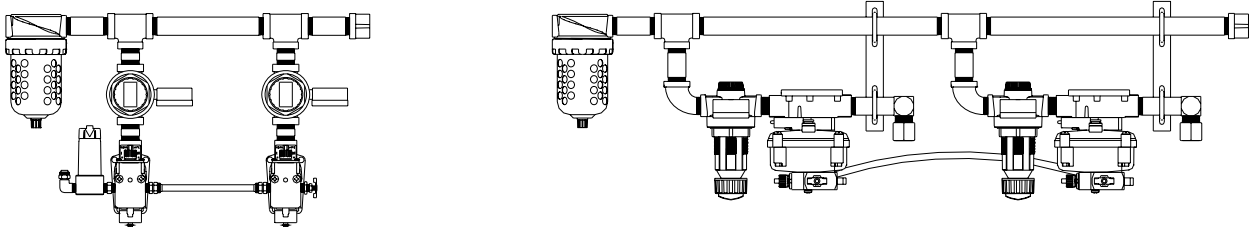
APCG4-111-1WX-YYZ (Vertical Lubricator)

APCG4-112-1WX-YYZ (Horizontal Lubricator)

APCG6-211-1WX-YYZ (Vertical Lubricator)

APCG6-212-1WX-YYZ (Horizontal Lubricator)

Double Air Preparation Combo



SIZE

1/2

1/2

3/4

3/4

ASSEMBLY PART NUMBER

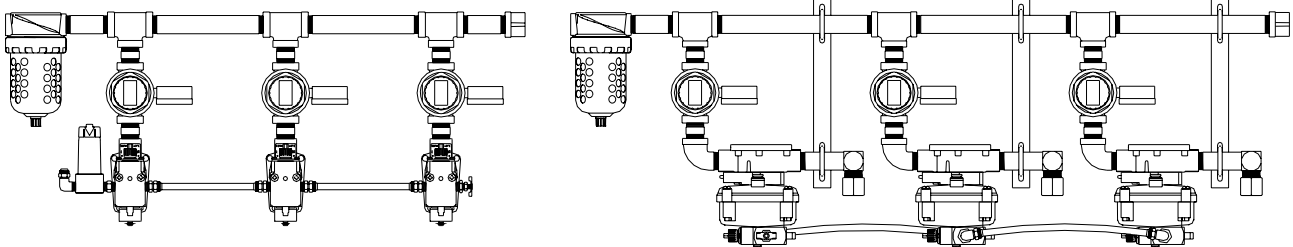
APCG4-111-2WX-YYZ (Vertical Lubricator)

APCG4-112-2WX-YYZ (Horizontal Lubricator)

APCG6-211-2WX-YYZ (Vertical Lubricator)

APCG6-212-2WX-YYZ (Horizontal Lubricator)

Triple Air Preparation Combo



SIZE

1/2

1/2

3/4

3/4

ASSEMBLY PART NUMBER

APCG4-111-3WX-YYZ (Vertical Lubricator)

APCG4-112-3WX-YYZ (Horizontal Lubricator)

APCG6-211-3WX-YYZ (Vertical Lubricator)

APCG6-212-3WX-YYZ (Horizontal Lubricator)

Assemblies shown above are typical, but not the only possibilities.
Please discuss your specifications with your Acumen distributor.

SUSPENSION, OUTLET & BASE ASSEMBLY OPTIONS

Acumen Technologies, Inc. will build your APC with the suspension that suits your plant requirements. Some of the more common styles are shown below. The options available on single point lubricators vary depending on tool rail height, location of work platforms and production employee's orientation to the assembly process. Our design assistance will help establish a total system that best suits your production, ergonomic, process and safety needs.



Code Description

F 3" I-Beam Assembly

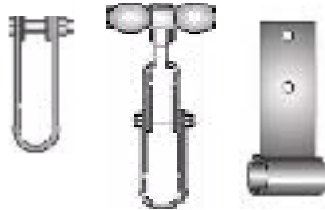
L 4" I-Beam Assembly



Code Description

D Hollywood Assembly

Combo Suspensions



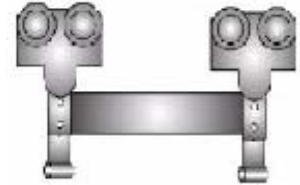
Code Description

C Clevis Attachments

J Johnson / Unistrut with Trolleys

B Welding Bracket

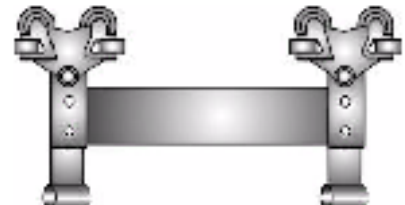
For assembly less trolleys use Code N



Code Description

G Unified

H KBK



Code Description

K Webb Trolley

Lubricator Outlet Options

Code Description

A Coaxial Socket 1/2 "

B Coaxial Socket 3/4 "

C 1/2 " Whip Hose with 1/2 " Coaxial Socket

D 3/4 " Whip Hose with 1/2 " Coaxial Socket

E 3/4 " Whip Hose with 3/4 " Coaxial Socket

X None

Base Assembly Options

Code Description

B Balancer Bar

C Drop Bar

D External Reservoir 10 oz

E External Reservoir 1 Qt.

F Central Fill Accessories

G For Curved Rail

H Q/D Plug at Inlet

S_,_,_ Special

SERV-OIL SINGLE POINT LUBRICATOR

Master Pneumatic's unique SERV-OIL Single Point Lubricator for precision lubrication of air tools is considered by many segments of industry as the most important single development in the field of air-tool lubrication. It is widely used in automotive assembly lines, and can improve air-tool performance in any industrial application.

REDUCES

- WEAR
- COST
- DOWNTIME



INCREASES

- CONTROL OF LUBRICATION
- LIFE OF EQUIPMENT
- PRODUCTION EFFICIENCY

ADVANTAGES

- **Precise Volume Control:** Metering pin injects precise amount of lubricant each time.
- **Wide Adjustment Range:** 1/2 drop to 1/200 drop with standard unit. Other adjustment ranges available.
- **Accurate Delivery:** Internal oil line directs oil to the tool inlet.
- **Consistent Delivery:** No puddling of oil in the air hose as with conventional "mist" or "fog" lubricators.
- **Consistent Torque Output:** No "feast or famine" oil delivery with the resultant speed-up or slow-down of tool output.

FEATURES

- **Removable Adjustment Key:** Discourages unauthorized adjustments
- **Sight Indicator:** Provides visual confirmation of oil flow
- **Built in Counter Standard:** Units can be field set to operate at 1,5 or 10 tool cycles for large or small tools
- **Gravity Oil Supply:** Since oil reservoir is not operating under line pressure lubricators can be filled automatically from a central gravity oil supply system
- **Warranty:** All SPL's are fully tested and ready to operate when shipped and carry a 7 year warranty direct from Master Pneumatic.

HOW TO ORDER

| SIZE | MAXIMUM OUTPUT | PART NUMBER | GOLD STANDARD PART NUMBER | INTEGRAL RESERVOIR |
|------|----------------|-------------|---------------------------|--------------------|
| 1/2 | .015 ml | PA64045 | PGA64045 | YES |
| 1/2 | .015 ml | PA60045 | PGA60045 | NO |
| 3/4 | .015 ml | PA64065 | PGA64065 | YES |
| 3/4 | .015 ml | PA60065 | PGA60065 | NO |
| 1/2 | .030 ml | PA64041 | PGA64041 | YES |
| 1/2 | .030 ml | PA60041 | PGA60041 | NO |
| 3/4 | .030 ml | PA64061 | PGA64061 | YES |
| 3/4 | .030 ml | PA60061 | PGA60061 | NO |
| 1/2 | .060 ml | PA64042 | PGA64042 | YES |
| 1/2 | .060 ml | PA60042 | PGA60042 | NO |
| 3/4 | .060 ml | PA64062 | PGA64062 | YES |
| 3/4 | .060 ml | PA60062 | PGA60062 | NO |

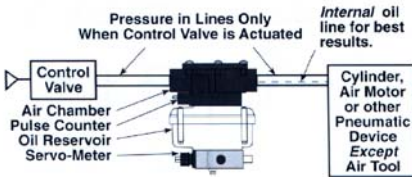
Add Suffix "BB" to part numbers for Double Counter Option

SEE PAGE 14 FOR COMPLETE SPL ASSEMBLY INFORMATION

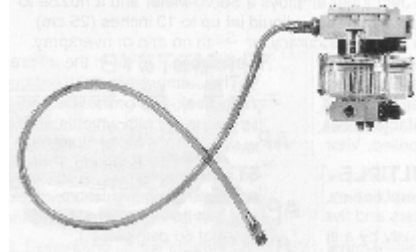
SERV-OIL DOWNSTREAM LUBRICATOR

For Cylinders, Air Motors, Valve-operated Drills, etc,

Master Pneumatic's downstream lubricator is designed to overcome the shortcomings of a conventional mist lubricator installed downstream of a control valve. Laboratory and field tests have shown that a lubricator installed in the conventional manner, results in most oil dispensed by the lubricator being exhausted to atmosphere through the exhaust port of the control valve.



Typical Installation of Downstream Lubricator



With conventional "mist" lubrication much of the oil passes through the control valve in a liquid state where it clings to the wall of the air line and moves back and forth with each valve cycle. The downstream lubricator eliminates this shortcoming by delivering the oil through an internal oil line directly to the lubrication point. The addition of a silencer / reclassifier to the exhaust port of the control valve eliminates the oil mess usually found at the control valve exhaust.

ADVANTAGES

- **Precise Volume Control:** Metering pin injects precise amount of lubricant each time.
- **Wide Adjustment Range:** 1/2 drop to 1/200 drop with standard unit. Other adjustment ranges available.
- **Accurate Delivery:** Internal oil line directs oil to the device inlet.
- **Extended Cylinder / Motor Life:** Proper lubrication results in longer wear and reduced downtime.
- **Clean Housekeeping:** No dumping of excess oil out the valve exhaust

FEATURES

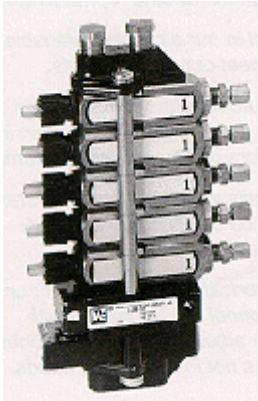
- **Removable Adjustment Key:** Discourages unauthorized adjustments
- **Sight Indicator:** Provides visual confirmation of oil flow
- **Built in Counter Standard:** Units can be field set to operate at 1,5 or 10 tool cycles for large or small tools
- **Gravity Oil Supply:** Since oil reservoir is not operating under line pressure lubricators can be filled automatically from a central gravity oil supply system

HOW TO ORDER

| SIZE | MAXIMUM OUTPUT | HOSE LENGTH | PART NUMBER |
|------|-------------------------|-------------|---------------------------------|
| 1/2 | .015 ml | 15 FOOT | PD64045-THC-12701-515-M08R-M04S |
| 1/2 | .030 ml | 15 FOOT | PD64041-THC-12701-515-M08R-M04S |
| 1/2 | .060 ml | 15 FOOT | PD64042-THC-12701-515-M08R-M04S |
| 3/4 | .015 ml | 15 FOOT | PD64065-THC-12701-515-M12R-M04S |
| 3/4 | .030 ml | 15 FOOT | PD64061-THC-12701-515-M12R-M04S |
| 3/4 | .060 ml | 15 FOOT | PD64062-THC-12701-515-M12R-M04S |
| 1/2 | SILENCER / RECLASSIFIER | | MRS100-4 |
| 3/4 | SILENCER / RECLASSIFIER | | MRS100-6 |

SERV-OIL MULTIPLE POINT LUBRICATOR

Up to 10 Servo-Meters can be assembled to make up a Multiple Point Lubricator (MPL). The modular assembly allows Servo-Meters to be added or subtracted at any time to serve changing requirements.



OPTIONS

Series 710: One mounting plate with 2 mounting holes.

Series 720: Top and bottom mounting plates with two holes each.

Number of Servo Meters: Up to 10 as required.

Choice of 3 Output Ratings: 1/2 drop, 1 drop (Standard), or 2 drops.

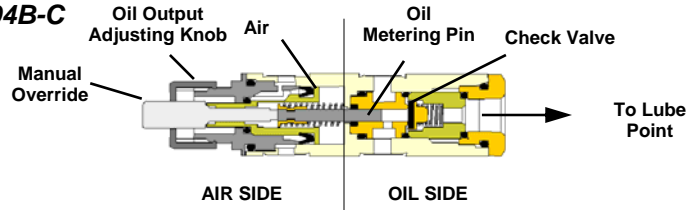
Frequency Control: Single Counter (Standard)

Double counter

Frequency controller

Seal Options: Buna (Standard), EPR, Neoprene, Viton

Model 71004104B-C



The Servo-Meter is the key module in the SERV-OIL line. It is a precision, positive-displacement oil injector which is actuated by an air pressure signal. 1/8" Oil-filled nylon line carries the injected oil from the Servo-Meter to the point of lubrication. A ball check valve at the end of the line ensures that the line remains full of oil and free of air.

HOW TO ORDER

MPL Model No. **710 ## ** 4B-@**

710 - Multiple point lubricator assembly

720 - Multiple point lubricator assembly with heavy duty mount

Number of Servo Meters

Specify the quantity with numerals from 01 to 10

05 - 1/2 Drop Servo Meters

10 - 1 Drop Servo Meters

20 - 2 Drop Servo Meters

4B - Used with all MPL orders

A - Servo-Meter shutoff (Non-shutoff standard)

B* - Block Plate (*) Location from top

C - Pulse Counter

CC - Two Pulse Counters

E - EPR seals

F - Frequency Controller

N - Neoprene seals

V - Viton seals

SEE PAGE 22 FOR OIL RESERVOIR OPTIONS

OIL RESERVOIRS

Servo-Meters can be supplied with attached or remote gravity oil reservoir systems. Remote reservoirs should be connected to the bottom port of the SERV-OIL equipment with a minimum 5/16 ID line. Pressure-fill systems should be avoided due to the high potential for nuisance leaks.

Transparent Reservoir



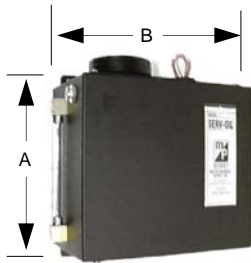
| Part No. | Capacity* |
|----------|-----------------------------------|
| M476R | 10 ounces (7970 drops) |
| M476RN | 10 ounces (nylon bowl) |
| M476RP | 10 ounces (polypropylene bowl) |



Transparent Reservoir

| Part No. | Capacity* |
|----------|---------------------------|
| M570-6R | 1 quart (25,400 drops) |
| M570-12R | 2 quart (50,000 drops) |

Metal Reservoir
Includes internal oil filter, sight tube, quick-fill fitting, and filter breather fill cap.



| Part No. | Capacity* |
|----------|---------------------------------|
| 473R | 1 gallon (102,000 drops) |
| 477R | 5 gallons (508,000 drops) |
| 479R | 10 gallons (1,020,000 drops) |

Accessories

Low Level Switch (not for 10-oz models):
Add suffix **G** to reservoir part number

High and Low Level Switches (not for 10-oz models):
Add suffix **GG** to reservoir part number

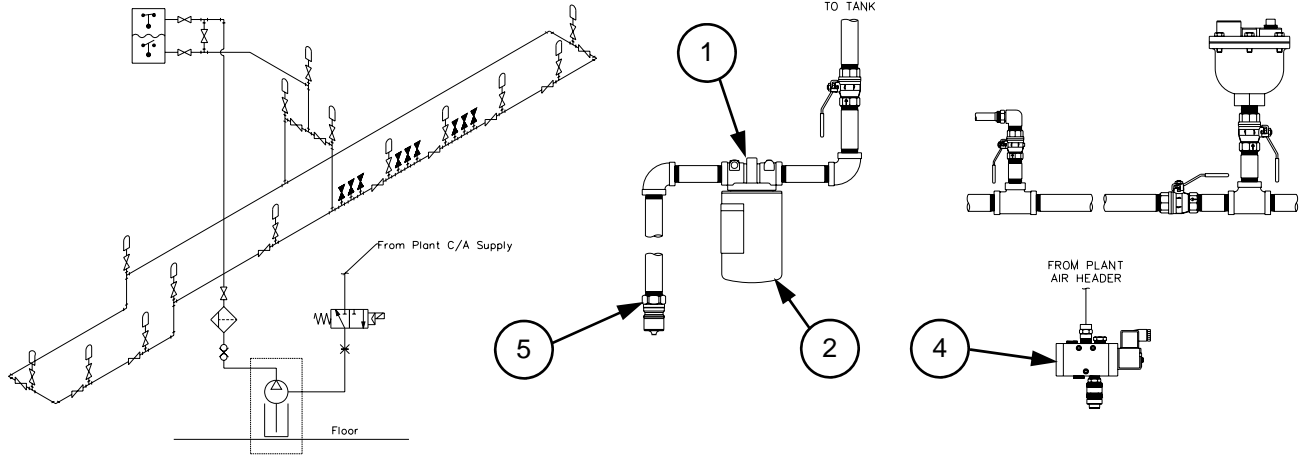
Sight Dome & Remote Indicator:
Side Mounting: Part M481R
Top Mounting: Part 482R

RESERVOIR DIMENSIONS inches (cm)

| | | Dimensions | | |
|----------|------------|--------------|-------------|-------------|
| Part No. | Capacity | A | B | Depth |
| M476R | 10 OUNCES | 5.31 (13.5) | 3.19 (8.10) | 3.19 (8.10) |
| M476RN | 10 OUNCES | 5.31 (13.5) | 3.19 (8.10) | 3.19 (8.10) |
| M476RP | 10 OUNCES | 5.00 (12.7) | 3.19 (8.10) | 3.19 (8.10) |
| M570-6R | 1 QUART | 7.39 (18.8) | 5.38 (13.7) | 4.81 (12.2) |
| M570-12R | 2 QUARTS | 13.4 (34.0) | 5.38 (13.7) | 4.81 (12.2) |
| 473R | 1 GALLON | 9.73 (24.7) | 10.9 (27.6) | 6.06 (15.4) |
| 477R | 5 GALLONS | 17.7 (45.0) | 14.9 (37.8) | 6.06 (15.4) |
| 479R | 10 GALLONS | 25.0 (63.5) | 16.9 (42.9) | 7.09 (18.0) |

SEE PAGE 17 FOR 30 GALLON RESERVOIR AND COMPLETE SYSTEMS

OIL DELIVERY SYSTEMS



Det. DESCRIPTION

PART No.

SYSTEM FEATURES

30 Gallon Reservoir with Standard Controls

ODS-C-S

Higher Volume Polyethylene Reservoir

30 Gallon Reservoir with Auto Pump-Up Controls

ODS-C-P

- Reduction in Cost of Fill
- Holds a Full 25 Gallon Drum of Oil

30 Gallon Polyethylene Reservoir Only

ODS-T-X

Electronic Controls

Electronic Control Package Only

ODS-E-S

- Visual and / or Electronic Indication

Electronic Control Package with Pump Up Controls

ODS-E-P

- Available w/ Automatic Fill Controls

Drum Pump Only

ODS-PUMP

Gravity System

Air Hose to Pump

10705-68-P5-MO4R

- Simplicity by Design
- Maintenance Free

Oil Hose from Pump

10707-128-M12R-DHS12

System Capability - 1000 Lineal Feet Pipe

16 Gal Portable Oil Fill Cart with Hand Pump

FT8-16M

- Design by ACUMEN

55 Gal Portable Oil Fill Cart with Bung Pump

FT8-55M

Oil Header Vent

ODS-VENT

Poly Tubing, 3/8 OD Tube

ODS-222-6

Porous Bronze Filter Assembly - 3/8 Tube

AC-584-18

Central Fill Line Quick Disconnect Plug

AC-HN2

Central Fill Line Quick Disconnect Socket

AC-HK2

Capillary Tube Pliers

CTP97

① Complete Oil Filter Assembly

ODS-1-X

② Replacement Filter Element

ODS-2-X

③ Replacement Breather For Reservoir

ODS-3-X

④ Replacement Air Solenoid Valve

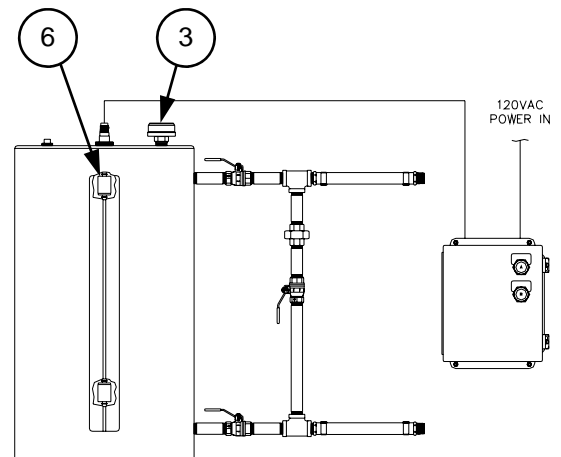
ODS-4-X

⑤ Replacement Disconnect For Oil Fill

ODS-5-X

⑥ Replacement HI-LO Switch Assembly

ODS-6-X



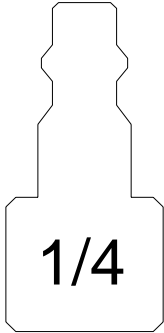



Your total system can be designed by Acumen Technologies, Inc. at no charge. Contact your technically trained, local Authorized Distributor for details.

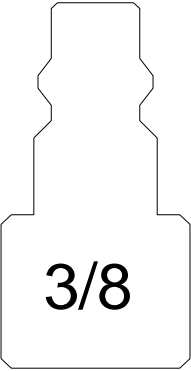



1/4 & 3/8 BODY SIZE COUPLINGS

Industrial Interchange

Mil spec 4109C



| BODY SIZE | END CONNECTION SIZE | PLUG | DC SERIES SAFETY VENT | NON-MAR SAFETY VENT | PREVOST SAFETY VENT | |
|---|---|-------|-----------------------|---------------------|---------------------|-------------|
| <p>This section contains 1/4" Body Size plugs and sockets</p> <p>Any plug will fit any socket listed</p>  | FEMALE PIPE THREAD | | | | | |
| |  | 1/8" | P320 | — | — | — |
| | | 1/4" | P340 | DC040 | — | ISC 061 201 |
| | | 3/8" | P360 | DC060 | — | ISC 061 202 |
| | MALE PIPE THREAD | | | | | |
| |  | 1/8" | P321 | — | — | — |
| | | 1/4" | P341 | DC041 | — | ISC 061 251 |
| | | 3/8" | P361 | DC061 | — | ISC 061 252 |
| | HOSE BARB | | | | | |
| |  | 1/4" | P342 | DC042 | — | ISC 061 806 |
| | | 5/16" | P352 | — | — | — |
| | | 3/8" | P362 | DC062 | — | ISC 061 810 |




| | | | | | | |
|--|---|------|-------|-------|-------------|-------------|
| <p>This section contains 3/8" Body Size plugs and sockets</p> <p>Any plug will fit any socket listed</p>  | FEMALE PIPE THREAD | | | | | |
| |  | 1/4" | P440 | DCA40 | — | ISC 081 201 |
| | | 3/8" | P460 | DCA60 | DPA60 | ISC 081 202 |
| | | 1/2" | P480 | DCA80 | — | ISC 081 203 |
| | MALE PIPE THREAD | | | | | |
| |  | 1/8" | P421 | — | — | — |
| | | 1/4" | P441 | DCA41 | — | ISC 081 251 |
| | | 3/8" | P461 | DCA61 | — | ISC 081 252 |
| | | 1/2" | P481 | DCA81 | — | ISC 081 253 |
| | HOSE BARB | | | | | |
| |  | 1/4" | P442 | — | — | — |
| | | 3/8" | P462 | DCA62 | DPA62 | ISC 081 810 |
| 1/2" | | P482 | DCA82 | DPA82 | ISC 081 813 | |

1/2 & 3/4 BODY SIZE COUPLINGS



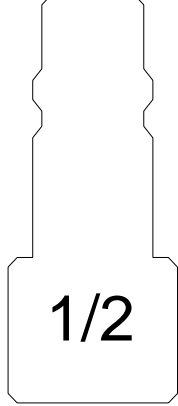
Industrial Interchange

Mil spec 4109C




| END CONNECTION SIZE | PLUG | DC SERIES SAFETY VENT | NON-MAR SAFETY VENT | PREVOST SAFETY VENT | BODY SIZE |
|---|------|-----------------------|---------------------|---------------------|-------------|
| FEMALE PIPE THREAD | | | | | |
|  | 3/8" | P560 | DC260 | — | ISG 111 202 |
| | 1/2" | P580 | DC280 | DP280 | ISG 111 203 |
| | 3/4" | P5120 | DC2120 | — | ISG 111 204 |
| MALE PIPE THREAD | | | | | |
|  | 1/4" | P541 | — | — | — |
| | 3/8" | P561 | DC261 | — | ISG 111 252 |
| | 1/2" | P581 | DC281 | — | ISG 111 253 |
| | 3/4" | P5121 | DC2121 | — | ISG 111 254 |
| HOSE BARB | | | | | |
|  | 3/8" | P562 | DC262 | DP262 | ISG 111 810 |
| | 1/2" | P582 | DC282 | DP282 | ISG 111 813 |
| | 3/4" | P5122 | DC2122 | — | ISG 111 819 |

This section contains 1/2" Body Size plugs and sockets

Any plug will fit any socket listed

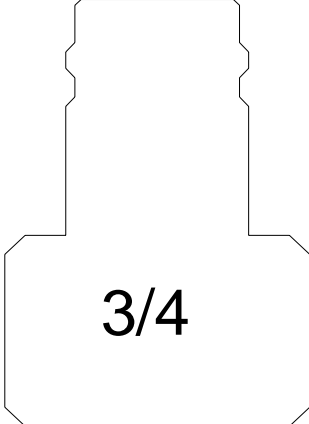


1/2

| | | | | | |
|---|------|-------|--------|---|---|
| FEMALE PIPE THREAD | | | | | |
|  | 3/4" | P5120 | DC3120 | — | — |
| | 1" | — | DC3160 | — | — |
| MALE PIPE THREAD | | | | | |
|  | 1/2" | P681 | — | — | — |
| | 3/4" | P6121 | DC3121 | — | — |
| | 1" | P6161 | DC3161 | — | — |
| HOSE BARB | | | | | |
|  | 1/2" | P682 | — | — | — |
| | 3/4" | P6122 | DC3122 | — | — |

This section contains 3/4" Body Size plugs and sockets

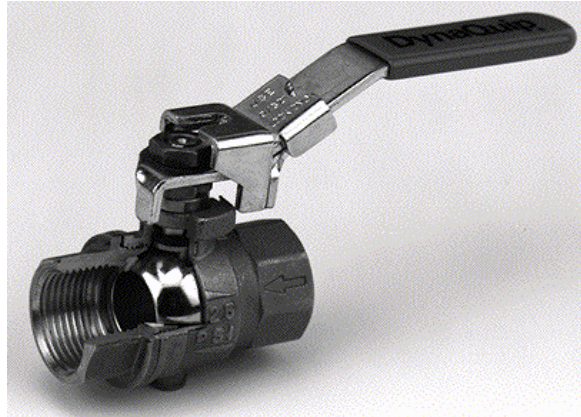
Any plug will fit any socket listed



3/4

DYNAQUIP SAFETY EXHAUST VALVE

BRASS



VMH2-A9JP

MATERIALS

Body: Brass, Forged

Stem: Brass, Nickle Plated

Thrust Washer: 25% Carbon Reinforced PTFE

Stem Seal: 15% Glass Reinforced PTFE

Packing Nut: Brass, Nickle Plated

Handle: Steel, Dacromet Finish, Vinyl Grip

Handle Nut: Steel, Dacromet Finish

Packing Nut: Brass, Nickle Plated

Ball Seats: 15% Glass Reinforced PTFE

Ball: Brass, Chrome Plated

End Cap: Brass, Forged

DE-ENERGIZE & LOCK OUT

DynaQuip safety exhaust ball valves automatically and continuously vent residual air on the downstream side when the valve is turned off. Lockout handle can be padlocked only in this position. With this type of venting action and lockout design, the ball valve ensures air-powered equipment is safe to service.

SPECIFICATIONS

Pressure Rating: 200 PSI Air

Temperature Range: 40 deg to 140 deg F

End Type: Threaded

Handle: Lever with tamper proof lockout feature

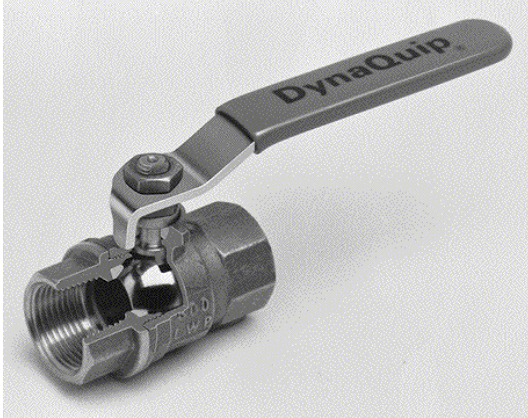
Exhaust Rate: 14.5 SCFM @ 100 PSI

HOW TO ORDER

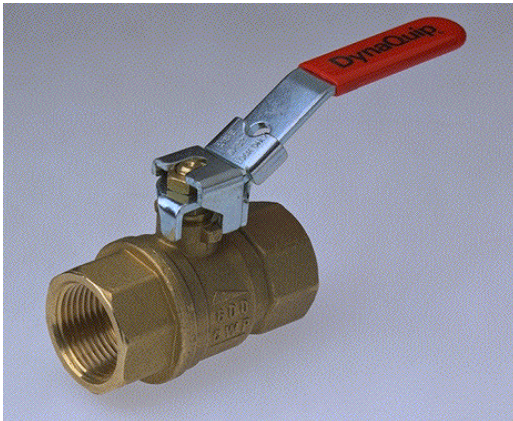
| SIZE | PART NUMBER |
|-------|-----------------|
| 1/4 | VMH2-A9JP-1/4 |
| 3/8 | VMH2-A9JP-3/8 |
| 1/2 | VMH2-A9JP-1/2 |
| 3/4 | VMH2-A9JP-3/4 |
| 1 | VMH2-A9JP-1 |
| 1 1/4 | VMH2-A9JP-1 1/4 |
| 1 1/2 | VMH2-A9JP-1 1/2 |
| 2 | VMH2-A9JP-2 |

Meets requirements of Par. 1910.147 of the O.S.H.A. rules and regulations for energy isolating and lockout devices

DYNAQUIP TWO-PIECE SCREWED BODY VALVE BRASS



VMH2-A9



VMH2-A9OP

SPECIFICATIONS

Pressure Rating: 600 PSI CWP (non-shock)

Steam Rating: 150 WSP

Temperature Range: -20 deg to 370 deg F

End Type: Threaded

Handle: Lever with vinyl grip standard

Options: Lockout Handle

MATERIALS

Body: Brass, Forged

Stem: Brass, Nickle Plated

Thrust Washer: 25% Carbon Reinforced PTFE

Stem Seal: 15% Glass Reinforced PTFE

Packing Nut: Brass, Nickle Plated

Handle: Steel, Dacromet Finish, Vinyl Grip

Handle Nut: Steel, Dacromet Finish

Ball Seats: 15% Glass Reinforced PTFE

Ball: Brass, Chrome Plated

End Cap: Brass, Forged

HOW TO ORDER

| SIZE | PART NUMBER W/O LOCKOUT | PART NUMBER WITH LOCKOUT HANDLE |
|-------|----------------------------|------------------------------------|
| 1/4 | VMH2-A9-1/4 | VMH2-A9OP-1/4 |
| 3/8 | VMH2-A9-3/8 | VMH2-A9OP-3/8 |
| 1/2 | VMH2-A9-1/2 | VMH2-A9OP-1/2 |
| 3/4 | VMH2-A9-3/4 | VMH2-A9OP-3/4 |
| 1 | VMH2-A9-1 | VMH2-A9OP-1 |
| 1 1/4 | VMH2-A9-1 1/4 | VMH2-A9OP-1 1/4 |
| 1 1/2 | VMH2-A9-1 1/2 | VMH2-A9OP-1 1/2 |
| 2 | VMH2-A9-2 | VMH2-A9OP-2 |

APPROVALS

UL for LP gas

AGA and CGA for natural gas

Factory Mutual for fire protection systems

HOSE FITTINGS

Urethane Hose Fitting

| Part No. | Description |
|--------------|--|
| PSM44 | 1/4 Insert x 1/4 MPT |
| PSM54 | 5/16 Insert x 1/4 MPT |
| PSM56 | 5/16 Insert x 3/8 MPT |
| PSM64 | 3/8 Insert x 1/4 MPT |
| PSM66 | 3/8 Insert x 3/8 MPT |
| PRM66 | 3/8 Insert x 3/8 MPT NON-SWIVEL |
| PSM88 | 1/2 Insert x 1/2 MPT |
| PRF68 | 3/8 Insert x 1/2 FPT |
| PRF88 | 1/2 Insert x 1/2 FPT |

The urethane fittings listed above are reusable fittings. All males except the **PRM66** are swivels. **All female fittings are non swivel.**



| Description | Part Number - SWIVEL | Part Number - RIGID |
|----------------------|-----------------------------|----------------------------|
| 1/4 Insert x 1/4 MPT | | AC102-0404 |
| 3/8 Insert x 3/8 MPT | | AC102-0606 |
| 1/2 Insert x 1/2 MPT | SM1568-8 | AC102-0808 |
| 1/2 Insert x 3/4 MPT | | AC102-0812 |
| 3/4 Insert x 1/2 MPT | | AC102-1208 |
| 3/4 Insert x 3/4 MPT | SM1568-12 | AC102-1212 |
| 1 Insert x 1 MPT | SM1568-16 | |
| 3/8 Insert x 1/2 FPT | | AC104-0608 |
| 1/2 Insert x 1/2 FPT | | AC104-0808 |
| 3/4 Insert x 3/4 FPT | | AC104-1212 |

Swivel Fittings for Self Storing Nylon Hose

| Part Number | Description |
|-------------|---------------------|
| AC1400 | 1/4 Hose x 1/4 MPT |
| AC4500 | 5/16 Hose x 1/4 MPT |
| AC1600 | 3/8 Hose x 3/8 MPT |
| AC1700 | 1/2 Hose x 1/2 MPT |
| AC1802 | 3/4 Hose x 3/4 MPT |



BRASS ADAPTERS & TUBE FITTINGS - HOSE CLAMPS

| BRASS ADAPTER | SIZE | PART |
|-----------------------------|------------|------------|
| Male x Male NPTF | 1/4 x 1/8 | AC379-0402 |
| | 1/4 x 1/4 | AC370-0404 |
| | 3/8 x 1/4 | AC379-0604 |
| | 3/8 x 3/8 | AC370-0606 |
| | 1/2 x 3/8 | AC379-0806 |
| | 1/2 x 1/2 | AC370-0808 |
| | 3/4 x 1/2 | AC379-1208 |
| 3/4 x 3/4 | AC370-1212 | |
| Male x Female NPTF | 1/4 x 1/4 | AC375-0404 |
| | 1/4 x 3/8 | AC375-0604 |
| | 3/8 x 3/8 | AC375-0606 |
| | 3/8 x 1/2 | AC375-0806 |
| | 1/2 x 1/2 | AC375-0808 |
| Female x Female NPTF | 1/4 x 1/4 | AC371-0404 |
| | 3/8 x 1/4 | AC371-0604 |
| | 3/8 x 3/8 | AC371-0606 |
| | 1/2 x 3/8 | AC371-0806 |
| | 1/2 x 1/2 | AC371-0808 |



| BRASS FITTING | SIZE | PART NUMBER |
|--------------------|----------------------------|-------------|
| Tube x Pipe | 3/8 X 1/4 MPT | AC68P-64 |
| | 3/8 X 3/8 MPT | AC68P-66 |
| | 3/8 X 1/4 MPT 90° Elbow | AC169P-64 |
| | 3/8 X 3/8 MPT 90° Elbow | AC169P-66 |
| | 3/8 X 1/4 FPT | AC66P-64 |
| | 3/8 TUBE X 3/8 TUBE | AC62P-6 |
| Menders | 1/16 | AC178-0101 |
| | 3/16 | AC178-0303 |
| | 1/4 | AC178-0404 |
| | 3/8 | AC178-0606 |
| | 1/2 | AC178-0808 |
| 3/4 | AC178-1212 | |
| Check Valve | 1/16 | AC178-010X |



| Size | Part Number | Bag Qty | Size | Part Number | Bag Qty |
|------|-------------|---------|-------|-------------|---------|
| 1/4 | 0507 | 500 | 3/4 | 1720 | 100 |
| 5/16 | 0709 | 500 | 13/16 | 1922 | 100 |
| 7/16 | 0911 | 500 | 7/8 | 2023 | 100 |
| 1/2 | 1113 | 500 | 15/16 | 2225 | 100 |
| 9/16 | 1315 | 500 | 1 | 2327 | 100 |
| 5/8 | 1518 | 500 | | | |

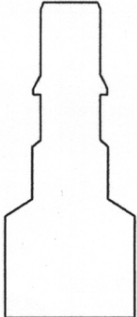




| Low Profile Clamp | Part Number |
|-------------------|-------------|
| 14.5 MM | 0145-905 |
| 16 MM | 0160-905 |
| 18 MM | 0180-905 |
| 18.5 MM | 0185-905 |

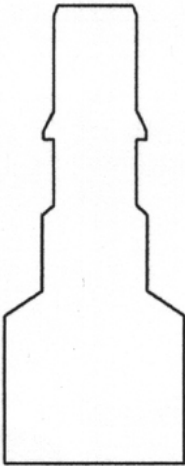






STAUBLI COUPLINGS

- Plugs conform to ISO 6150 series C profile
- Automatic safety conforms to anti hose-whip stipulations of ISO 4414



| BODY SIZE | END CONNECTION SIZE | PLUG | SOCKET | |
|---|--|-------|-----------------|------------|
| <p>This section contains 1/4" Body Size plugs and sockets</p> <p>Any plug will fit any socket listed</p>  | FEMALE PIPE THREAD | | | |
| |  | 1/8" | RBE06.6200 | — |
| | | 1/4" | RBE06.6201 | ERS06.1201 |
| | | 3/8" | RBE06.6202 | ERS06.1202 |
| | MALE PIPE THREAD | | | |
| |  | 1/8" | RBE06.6250 | — |
| | | 1/4" | RBE06.6251 | ERS06.1251 |
| | | 3/8" | RBE06.6252 | ERS06.1252 |
| | | 1/2" | — | ERS06.1253 |
| | HOSE BARB | | | |
| |  | 1/4" | RBE06.6806 | ERS06.1806 |
| | | 5/16" | RBE06.6808 | ERS06.1808 |
| | | 3/8" | RBE06.6810 | ERS06.1810 |
| | | 1/2" | RBE06.6813 | ERS06.1813 |
| | SPRING GUARD | | | |
|  | 5/16" | — | ERS06.1808/PT16 | |
| | 3/8" | — | ERS06.1810/PT16 | |
| | 3/8" | — | ERS06.1810/PT21 | |

| | | | | |
|--|---|-------|-----------------|------------|
| <p>This section contains 3/8" Body Size plugs and sockets</p> <p>Any plug will fit any socket listed</p>  | FEMALE PIPE THREAD | | | |
| |  | 1/4" | RBE08.6201 | ERS08.1201 |
| | | 3/8" | RBE08.6202 | ERS08.1202 |
| | | 1/2" | RBE08.6203 | ERS08.1203 |
| | MALE PIPE THREAD | | | |
| |  | 1/4" | RBE08.6251 | ERS08.1251 |
| | | 3/8" | RBE08.6252 | ERS08.1252 |
| | | 1/2" | RBE08.6253 | ERS08.1253 |
| | HOSE BARB | | | |
| |  | 1/4" | RBE08.6806 | — |
| | | 5/16" | RBE08.6808 | ERS08.1808 |
| | | 3/8" | RBE08.6810 | ERS08.1810 |
| | | 1/2" | RBE08.6813 | ERS08.1813 |
| | | 5/8" | RBE08.6816 | — |
| | SPRING GUARD | | | |
|  | 3/8" | — | ERS08.1810/PT16 | |
| | 3/8" | — | ERS08.1810/PT21 | |
| | 1/2" | — | ERS08.1813/PT21 | |

DETERMINING LUBRICATION RATES

CYLINDER LUBRICATION (Chart Below)

Know your cylinder's bore, stroke, and cycle rate. Use the chart below to get recommended counter and Servo-Meter settings.

Find the area (A, B, C, or D) in which the bore and stroke lines intersect. This is your key letter.

From the cycles per minute on the right of the chart go horizontally across to the line having your key letter.

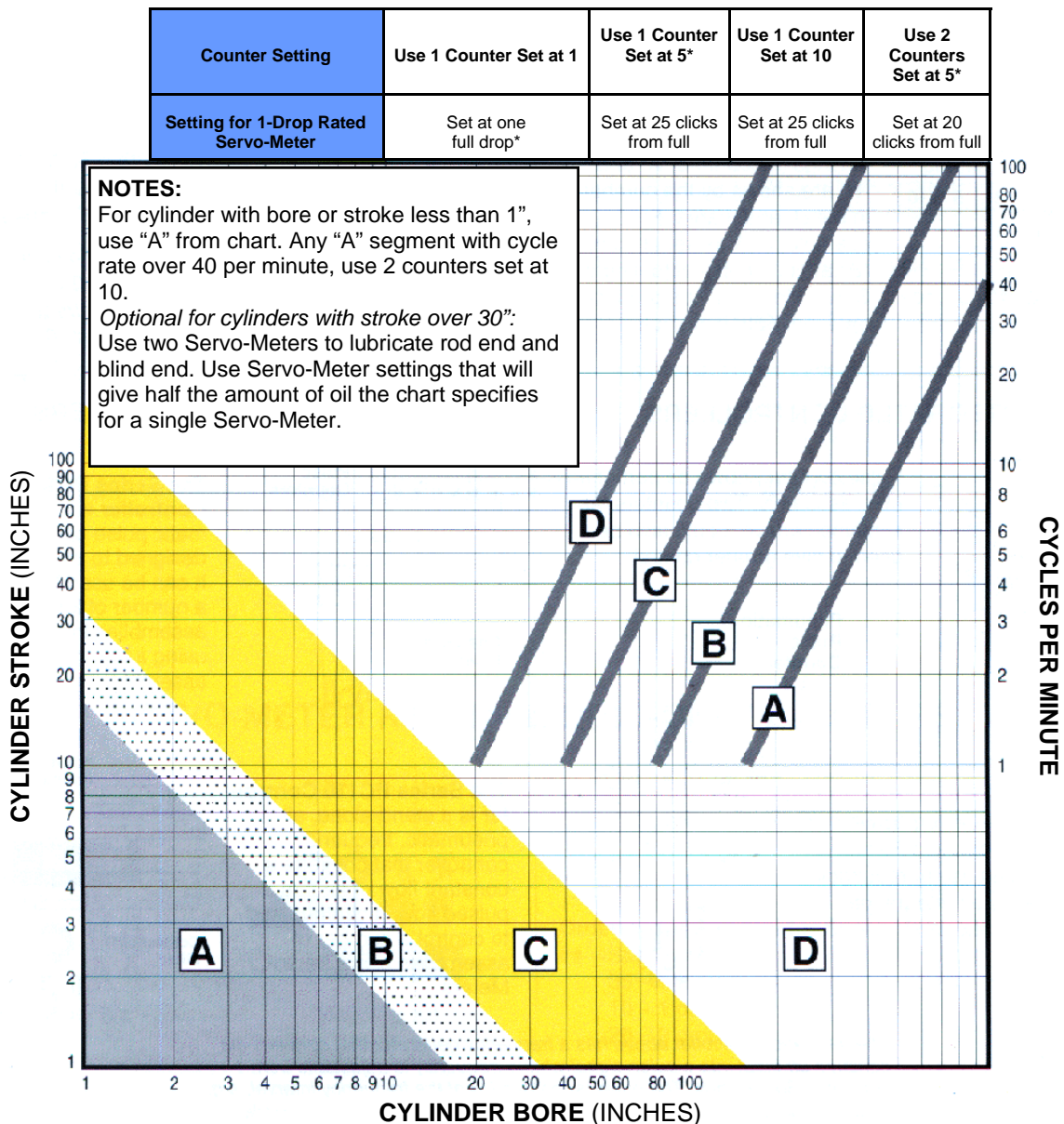
From this point go straight upward to the counter and Servo-Meter readings at the top of the chart.

OTHER MECHANISMS

Following are suggested lubrication rates for some of the common applications.

Air Motors: One drop for each 20 standard cubic feet of air used. To calculate the air used, multiply the tool's run time in minutes by the tool's rated SCFM (standard cubic feet per minute)

Bearings and Slides: Length, width, and speed of operation are all factors. Contact Acumen Technologies, Inc. with your specific data.





ACUMEN TECHNOLOGIES, INC.

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(586) 566-8600 • Fax (586) 566-4062
www.acumen-tech.com

EXPRESS LIMITED WARRANTY

Acumen Technologies, Inc. warrants to the Purchaser that the equipment delivered will be free from defects in material and workmanship for one year from date of purchase. This warranty does not cover normal service parts (such as filter elements) or parts that fail due to chemical attack*, abuse, improper service or use. The foregoing warranty is exclusive and in lieu of all other warranties whether written, oral, expressed or implied, including any WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE which are hereby expressly disclaimed.

If it appears within one year of the date of purchase that the equipment has not met the warranties above and the Purchaser notifies Acumen promptly, Acumen will correct any defect, at its option, either by repairing any defective part or at Acumen's sole option by making available at Acumen's plant a repaired or replacement part.

In no event will Acumen Technologies, Inc. be liable for losses due to business interruption, loss of profit, personal injury, cost of delay, or any special, indirect, incidental, or consequential damages.

* It is extremely important that our products be used in the proper environment. ABS, Polycarbonate, Nylon, Acetyl and other plastics are especially vulnerable to attack by certain chemicals and their fumes including compressor oils, cleaners, solvents, etc. Please consult with your chemical supplier to determine whether their products are injurious to the parts used in our products.

**PLEASE CONTACT THE FACTORY FOR THE AUTHORIZED
DISTRIBUTOR IN YOUR AREA.**

RETURNS

Products may be returned to the factory, freight prepaid, subject to inspection only upon express consent by Acumen Technologies, Inc. All returns are restricted to current standard goods in suitable condition for resale. Restock charges will apply. Please call for a Returned Goods Authorization Number.

TERMS

Our payment terms are **NET 30 days** from date of shipment.

All freight is **FOB - Shelby Township, Michigan**

Specify whether you require the freight to be **COLLECT** or **PREPAY and ADD**.

DISTRIBUTED BY: