

Plastic Fittings That Revolutionized The Techniques of Connecting Tubes.

JACO understands the needs of the plastics industry – from knowing how businesses operate to in-depth engineering design and applications.

For over 50 years, we have constantly looked for ways to make plastic parts better. And we've developed solutions in new technologies, equipment and products that have been solid contributors to industry.

JACO's innovative engineering, combined with our ability to produce precision plastic parts, led to the development of our compression fittings line.

Compression type metallic fittings have a loose ferrule which requires extra assembly. JACO has been able to mold the sleeve as an integral part of the nut,

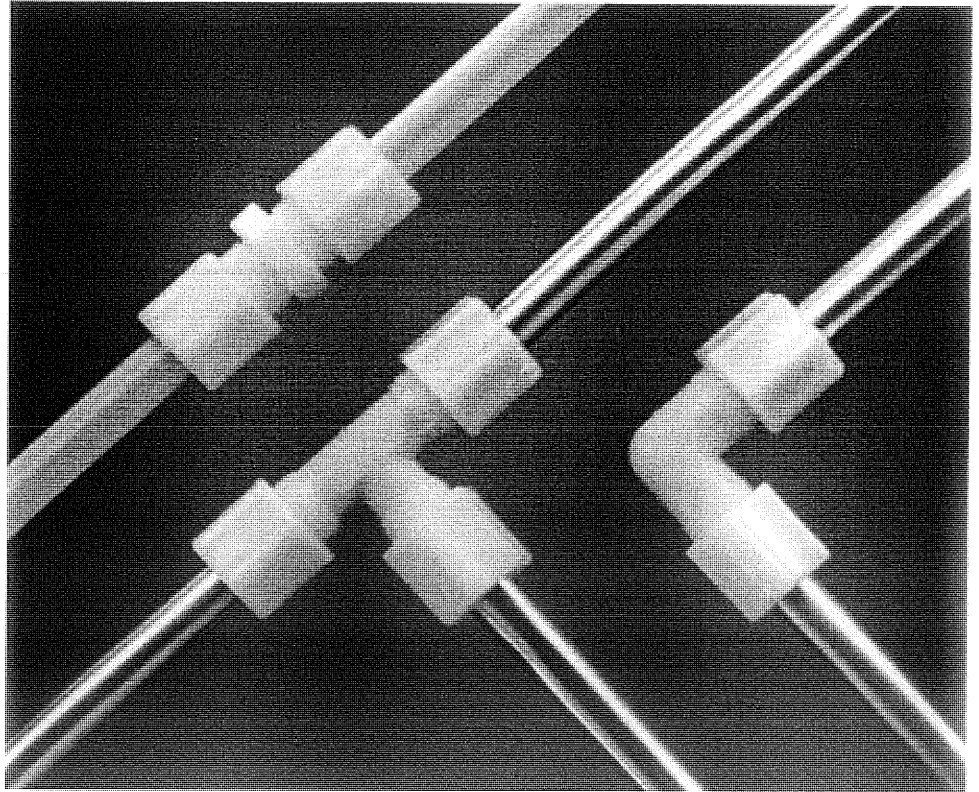
eliminating the need for a two-piece assembly.

Although fittings were originally developed for copper tubing, other fittings were then later engineered with plastic grippers for plastic tubing.

Today, JACO fittings are widely used with all types of tubing including copper, plastic, aluminum and glass.

JACO compression fittings typically cost less than metal fittings and they offer better resistance to corrosion and chemicals. Additionally, we offer four different plastic resins for a range of applications dealing with temperatures, acids and chemicals. JACO plastic fittings offer these additional advantages:

- ◆ Good electrical insulating qualities which eliminate electrolytic action that usually corrodes tubing when dissimilar metal meets a fitting.



- ◆ The ability to absorb mechanical and acoustical vibrations because of the low density and softness of plastic.
- ◆ An inherently low resistance to flow, due to smooth internal surface.
- ◆ A resistance to scale buildup.

Fittings are available in size ranges from 1/8" through 7/8" tube O.D. in all common configurations, such as union, bulkhead, male and female connectors, male branch and male run tees, tee unions and ferrule nuts. Metric sizes are also available on a special order basis.

Various resins are used, depending on the application. JACO plastic fittings are made of either nylon, acetal copolymer, polypropylene, or polyvinylidene fluoride.

HOW TO SELECT MATERIALS

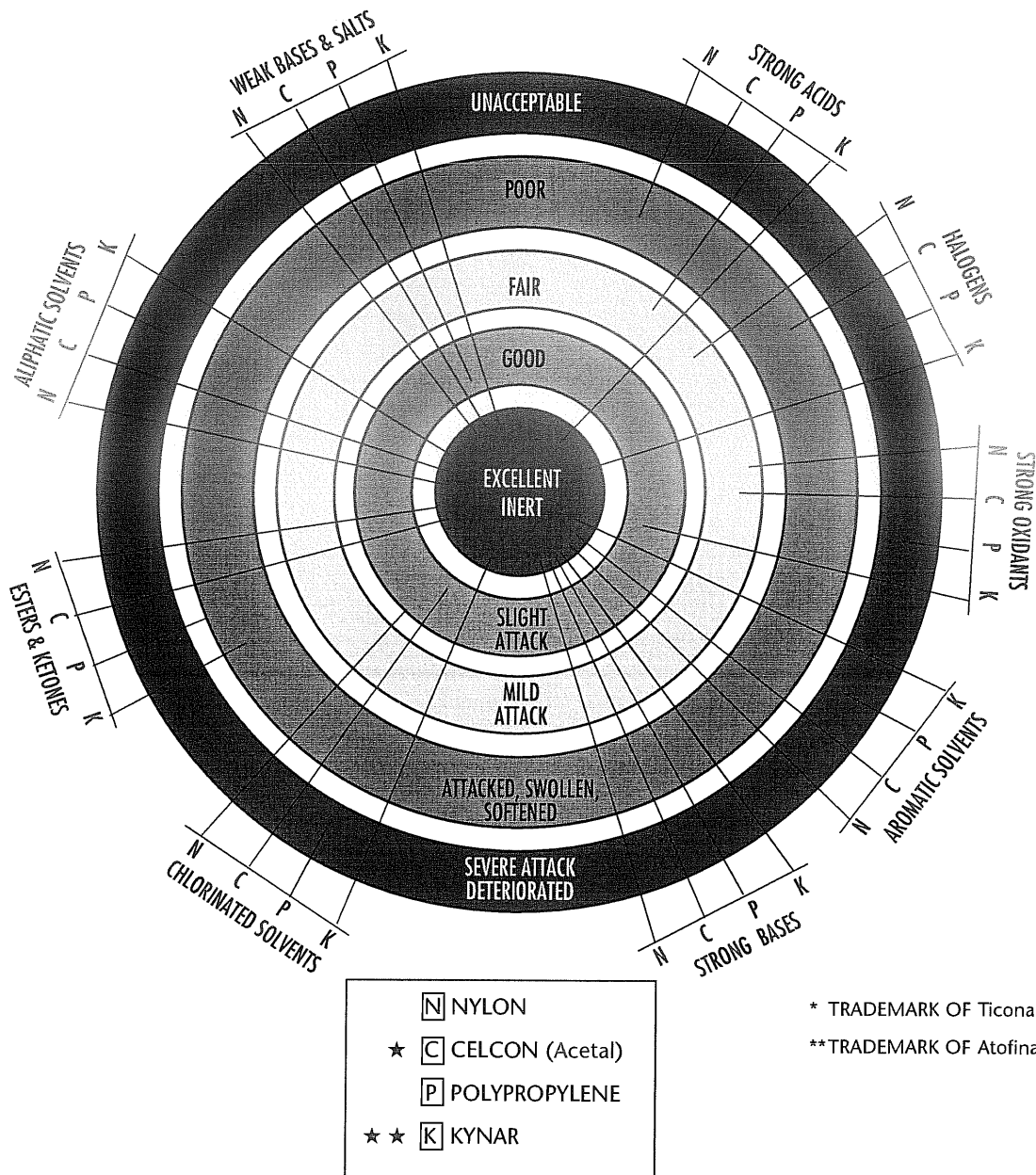
(N) Nylon has good resistance to organic solvents, oils and gasoline. Good strength at high temperatures. Material rating: -40° to 200°F. Cold and hot-water applications. Longtime weathering resistance. Good impact resistance, both single and repeated. Not recommended for use with ammonium, boric acid, calcium, sulfuric acid, or hydrochloric acid. F.D.A. listed. Also N.S.F. listed.

(C) Celcon, or acetal copolymer, has high tensile strength and good impact resistance over a broad temperature range. Translucent white color. Not affected by continuous hot-water service and works smoothly with metal tubing. Celcon cannot be recommended for continuous exposure to solutions with a chlorine

concentration greater than 1 ppm. Material is rated at -40° to 200°F in open air, and rated for 180°F in water applications. Unaffected by most inorganics, except sulfuric, nitric and hydrochloric acids. Listed by U.S.D.A. and F.D.A. for coffee, milk and antibiotics. Also N.S.F. listed. Should not be continuously exposed to sunlight.

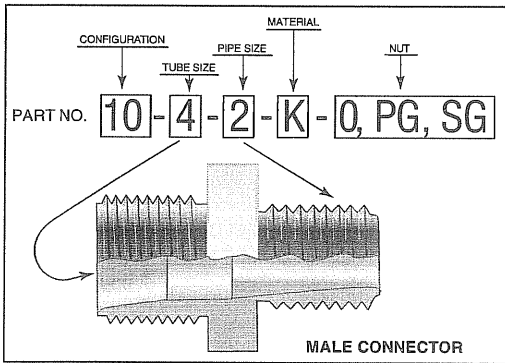
(P) Polypropylene has good chemical resistance. Material is rated at -30 to 215°. Opaque, white color. Unaffected by most weak acids and alkalis. Below 175°F it has good resistance to organic solvents. Do not use with oxidants or strong acids or in continuous sunlight. N.S.F. listed. 20% glass filled for improved stiffness.

(K) Kynar, a polyvinylidene fluoride, has outstanding chemical resistance for handling highly corrosive fluids. Material rated at -80 to 275°, with a cloudy, white color. F.D.A. listed, N.S.F. Listed.



Operating temperatures of JACO Tube Fittings are regulated by ambient and fluid temperatures, type of fluid being carried, tubing type, and conditions of mechanical abuse. Temperatures listed are designated as material ratings only. Testing of complete fitting in customer application is recommended.

HOW TO ORDER JACO TUBE COMPRESSION FITTINGS



The part number for JACO compression Fittings is designed so that each number and letter immediately identifies the shape, size and material.

For example: the first number identifies the shape, I.E.

10 = Male Connector,
25 = Female Connector,
50 = Union Elbow, etc.

The second number designates the tube size, in 1/16" increments, I.E.

4 = 1/4" O.D. Tubing,
8 = 1/2" O.D. Tubing.

The third number, also in 1/16" increments, (unless a Union type fitting is required), designates the pipe size.

The letter following the numbers indicates the material:

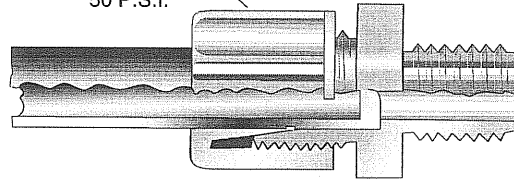
K = Kynar
N = Nylon
P = Polypropylene
C = Celcon

The last letter(s) denote the nut desired:

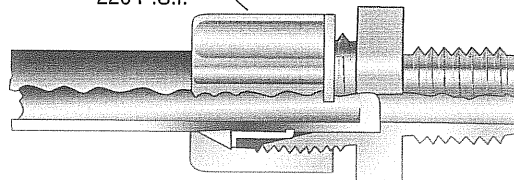
O = Standard - *50 P.S.I.
P.G. = Plastic Gripper for plastic tubing - *220 P.S.I.
S.G. = Stainless Steel Gripper for use with hard surfaced tubing - *220 P.S.I.

It is not necessary to designate the nut size when ordering complete units as this will be determined by the tube size indication in the part number.

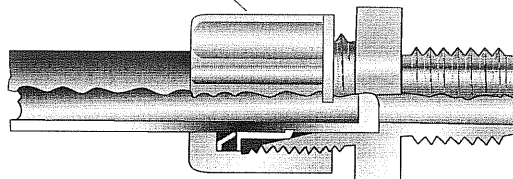
FERRULE NUT
WITH INTEGRAL SLEEVE
LOW PRESSURE APPLICATIONS
SOFT PLASTIC TUBING
*50 P.S.I.



WITH PLASTIC GRIPPER
FOR USE WITH PLASTIC TUBING
FOR SURE GRIP
*220 P.S.I.



WITH STAINLESS STEEL GRIPPER
FOR USE WITH HARD AND SMOOTH
SURFACED TUBING
*220 P.S.I.



Note: Fitting dimensions as described in this brochure may not reflect running changes made to improve part performance. Check with JACO Manufacturing Company in critical applications.

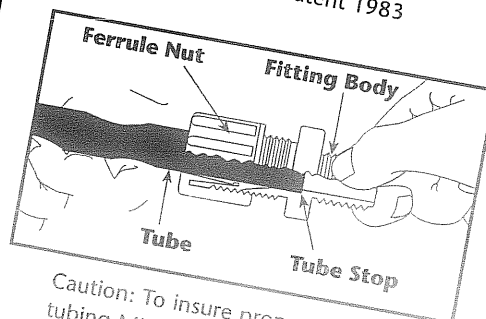
*Operating pressures of JACO Tube Fittings are regulated by ambient and fluid temperatures, type of fluid being carried, tubing type, and conditions of mechanical abuse. Pressures in excess of above specifications in all fitting sizes should be tested by the customer in their particular application.

INSTALLATION INSTRUCTIONS FOR JACO TUBE FITTINGS

1. Cut the tubing end squarely and remove the internal and external burrs.
2. Insert the tubing through the back of the nut all the way through the nut assembly to the tube stop in the fitting body (see illustration). If the tubing does not enter the nut easily, loosen the nut one turn and then insert the tubing all the way to the tube stop in the fitting body.
3. Turn the nut hand tight.
4. Wrench tighten the nut 1-1/2 - 2 turns.
5. All nuts must be retightened when the system reaches projected operating temperature.

NOTE: Squeaking sound when tightening nut is normal. For pipe threaded connections, Teflon Tape* must be used.

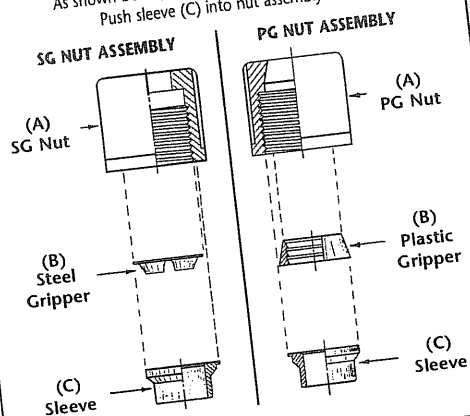
*Dupont's Reg. T.M. Patent 1983



Caution: To insure proper assembly, tubing MUST be fully inserted into the fitting body to the tube stop.

ASSEMBLY INSTRUCTIONS FOR JACO NUTS

Please follow these diagrams in assembling nuts. As shown below, insert gripper (B) into nut (A). Push sleeve (C) into nut assembly.



NOTE: It is not necessary to disassemble this fitting for application. Merely insert tubing to stop and tighten nut.