

Queensland Urban Utilities

Regional Lagoons Upgrade Project

Manual

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O&M Manuals

QPDocId	Region	Function	Title	Link
TMS311	Scenic Rim	General	Boonah STP ST56 Microfiltration (A090-0320-002 Pall Base Operations & Maintenance Manual OM Manual) General	TMS311
TMS312	Scenic Rim	General	Boonah STP ST56 Microfiltration (A090-0402-001 HMI Software Screens Appendix B) General	TMS312
TMS313	Scenic Rim	General	Boonah STP ST56 Microfiltration (A090-0321-001 System Functional Description Appendix C) General	TMS313
TMS314	Scenic Rim	General	Boonah STP ST56 Microfiltration (A090-0305-001 AP3 Installation Manual - Boonah Appendix D) General	TMS314
TMS315	Scenic Rim	General	Kalbar STP ST59 Microfiltration (A090-0320-002 Pall Base Operations & Maintenance Manual OM Manual) General	TMS315
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TMS319	Lockyer Valley	General	Forest Hill STP ST52 Microfiltration (A090-0320-002 Pall Base Operations & Maintenance Manual OM Manual)	TMS319
TMS320	Lockyer Valley	General	Forest Hill STP ST52 Microfiltration (A090-0402-001 HMI Software Screens Appendix B)	TMS320
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TMS326	Lockyer Valley	General	LaidleySTP ST53 Microfiltration (A090-0305-001 AP3 Installation Manual - Boonah Appendix D)	TMS326

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Vendor Manuals

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VM213	ACP	A090-070404-001	Compressed Air Pipe Manual	x	x	x	x	VM213
VM256	Alpha	A090-070422-001	FXM650 1100 2000 UPS Installation & Operation Manual	x	x	x	x	VM256
VM214	Amiad	A090-070405-001	Filtomat M100-750 Series Brochure	x	x	x	x	VM214
VM215	Amiad	A090-070405-002	Filtomat M100-750 Series Maintenance Instructions	x	x	x	x	VM215
VM216	Amiad	A090-070405-003	Filomat Inspection Certificate	x	x	x	x	VM216
VM255	ARI	A090-070421-001	D-021 ARV Data Sheet	x	x	x	x	VM255
VM217	Asahi Kasei	A090-070406-001	UNA-620A MF Module Operating Instruction	x	x	x	x	VM217
VM257	Atlas Copco	A090-070423-001	FXE1 Refrigerant Compressed Air Dryers - Instruction Book	x	x	x	x	VM257
VM258	Atlas Copco	A090-070423-002	GX 2-5 FM. Dimension drawing (2202 2609 60 ed. 01)	x	x	x	x	VM258
VM259	Atlas Copco	A090-070423-003	GX2-GX3 Instruction Book	x	x	x	x	VM259
VM260	Atlas Copco	A090-070423-004	PD & DD Filters Instruction Manual	x	x	x	x	VM260
VM261	Atlas Copco	A090-070423-005	Receiver VAR565-1170WP. 9724-5037-52	x	x	x		VM261
VM262	Atlas Copco	A090-070423-006	GX2-5 electrical drw	x	x	x	x	VM262
VM263	Atlas Copco	A090-070423-007	Dryer FXe1-3 Service Diagram	x	x	x	x	VM263
VM264	Atlas Copco	A090-070423-008	Dryer Instruction Book FXe1-5 EN	x	x	x	x	VM264
VM265	Atlas Copco	A090-070423-009	Dryer Spare Parts Book FXe1-5	x	x	x	x	VM265
VM266	Atlas Copco	A090-070423-010	FX1 to 5 Dimension drawing	x	x	x	x	VM266
VM267	Atlas Copco	A090-070423-011	1000 L 10barg VAR STD	x			x	VM267
VM218	Aussie Pumps	A090-070407-001	B2KQ-A_EAR4 Data Sheet	x	x	x		VM218
VM219	Aussie Pumps	A090-070407-002	B3XR-A-ST_EAS1 Data Sheet	x			x	VM219
VM220	Aussie Pumps	A090-070407-003	GMP Pump Manual	x	x	x	x	VM220
VM221	Aussie Pumps	A090-070407-004	GMP Pump Operating Instructions	x	x	x	x	VM221
VM268	Bourke Valves	A090-070424-001	Certificate of Conformance	x	x	x	x	VM268
VM222	Bray Valves	A090-070408-001	S20 21 Data Sheet	x	x	x	x	VM222
VM223	Bray Valves	A090-070408-002	S30 31 Data Sheet	x	x	x	x	VM223
VM224	Bray Valves	A090-070408-003	S92-93 Data Sheet	x	x	x	x	VM224

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QP	Vendor	File	Description	Boonah	Kalbar	Forest Hill	Laidley	Link
VM225	Bray Valves	A090-070408-004	S6A Dimensional Drawing	x	x	x	x	VM225
VM226	Bray Valves	A090-070408-005	S30-S92-S50 Dimensional Drawing	x	x	x	x	VM226
VM227	Bray Valves	A090-070408-006	S31-S92-S50 Dimensional Drawing	x	x	x	x	VM227
VM228	Bray Valves	A090-070408-007	Pneumatic Actuators Product Guide	x	x	x	x	VM228
VM229	Bray Valves	A090-070408-008	RSBV Product Guide	x	x	x	x	VM229
VM230	BVCI	A090-070409-001	2500L Round Squat Corrugated Tank	x	x	x	x	VM230
VM231	BVCI	A090-070409-002	5000L Round Corrugated Tank	x				VM231
VM232	Caps	A090-070410-001	SRV390 Conrader DataSheet	x				VM232
VM233	Caps	A090-070410-002	Equip - Air receiver -GA drawing	x				VM233
VM328	Cashco	A090-070439-001	Cashco - Installation Manual - Pressure Reducing Regulators - Models D & DL	x	x	x	x	VM328
VM330	Condamine Electric	A090-070441-002	Electrical Safety Compliance Certificate - Boonah	x				VM330
VM331	Condamine Electric	A090-070441-003	Electrical Safety Compliance Certificate - Kalbar		x			VM331
VM329	Condamine Electrical	A090-070441-001	Electrical Safety Compliance Certificate - Forest Hill			x		VM329
VM332	Condamine Electrical	A090-070441-004	Forrest Hill Electrical Certificate			x		VM332
VM333	Condamine Electrical	A090-070441-005	Laidley Electrical Certificate				x	VM333
VM209	Control IT	A090-070401-009	ITP	x	x	x	x	VM209
VM325	Danfoss	A090-070436-001	VLT Aqua Drive Operating Instructions	x	x	x	x	VM325
VM269	Emerson	A090-070425-001	Calibration Certificate - Serial 02813759	x				VM269
VM270	Emerson	A090-070425-002	Calibration Certificate - Serial 02813760	x				VM270
VM271	Emerson	A090-070425-003	Calibration Certificate - Serial 02832612	x				VM271
VM272	Emerson	A090-070425-004	Calibration Certificate - Serial 02832616	x				VM272
VM273	Emerson	A090-070425-005	3900 Manual	x	x	x	x	VM273
VM234	EzyStrut	A090-070411-001	ET3_ET5 Cable Tray Assembly Guide	x	x	x	x	VM234
VM294	Festo	A090-070431-001	Analog Modules	x	x	x	x	VM294
VM295	Festo	A090-070431-002	CPX - Pin Assignment Instructions	x	x	x	x	VM295
VM296	Festo	A090-070431-003	CPX IO and valve blocks - Analogue IO Modules	x	x	x	x	VM296
VM297	Festo	A090-070431-004	CPX IO and valve blocks - Digital IO Modules	x	x	x	x	VM297
VM298	Festo	A090-070431-005	CPX IO and valve blocks - Install & Commisisoning Manual	x	x	x	x	VM298
VM299	Festo	A090-070431-006	CPX IO and valve blocks - Manual	x	x	x	x	VM299

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QP	Vendor	File	Description	Boonah	Kalbar	Forest Hill	Laidley	Link
VM300	Festo	A090-070431-007	CPX Mounting - Data Sheet	x	x	x	x	VM300
VM301	Festo	A090-070431-008	CPX_EN	x	x	x	x	VM301
VM302	Festo	A090-070431-009	CPX-BG-RW-10X Assembly Instructions	x	x	x	x	VM302
VM303	Festo	A090-070431-010	CPX-FB32 IO and valve blocks - Electronics Manual	x	x	x	x	VM303
VM304	Festo	A090-070431-011	CPX-FEC IO and valve blocks - Electronics Manual	x	x	x	x	VM304
VM305	Festo	A090-070431-012	MSB Operating Instructions	x	x	x	x	VM305
VM306	Festo	A090-070431-013	MSF - MS6 Operating Instructions	x	x	x	x	VM306
VM307	Festo	A090-070431-014	MS-LFR Accessories - Data Sheet	x	x	x	x	VM307
VM308	Festo	A090-070431-015	MS-LFR Filter Regulator - Data Sheet	x	x	x	x	VM308
VM309	Festo	A090-070431-016	MS-W Operating Instructions	x	x	x	x	VM309
VM310	Festo	A090-070431-017	SDE1 Pressure Switch - Data Sheet	x	x	x	x	VM310
VM311	Festo	A090-070431-018	SDE1 Pressure Switch - Install Manual	x	x	x	x	VM311
VM312	Festo	A090-070431-019	SDE1 Pressure Switch - Manual	x	x	x	x	VM312
VM313	Festo	A090-070431-020	SDE1-SH Pressure Switch Protective Hood - Data Sheet	x	x	x	x	VM313
VM314	Festo	A090-070431-021	Universal Connecting Cables - Data sheet	x	x	x	x	VM314
VM315	Festo	A090-070431-022	VTSA Valve Terminal - Manual	x	x	x	x	VM315
VM316	Festo	A090-070431-023	QS Series Pneumatic Fittings	x	x	x	x	VM316
VM317	Festo	A090-070431-024	Silencers	x	x	x	x	VM317
VM274	GMP	A090-070426-001	Self Priming End Centrifugal Electric Pumps Installation Instructions	x	x	x	x	VM274
VM235	Grundfos	A090-070412-001	522 Injection Valve - Operation Manual	x	x	x	x	VM235
VM236	Grundfos	A090-070412-002	DD Chemical Tanks	x	x	x	x	VM236
VM237	Grundfos	A090-070412-003	Foot Valve IOM	x	x	x	x	VM237
VM238	Gruvlok	A090-070413-001	Fig 7305 HDPE Coupling	x	x	x	x	VM238
VM239	Gruvlok	A090-070413-002	Fig 7307 HDPE Transition Coupling	x	x	x	x	VM239
VM240	Gruvlok	A090-070413-003	HDPE Coupling Manual	x	x	x	x	VM240
VM275	Hach	A090-070427-001	Calibration Test Certificate - SC200 Controller - 1206C0043665	x				VM275
VM276	Hach	A090-070427-002	Calibration Test Certificate - SC200 Controller - 1210C0049992	x				VM276
VM277	Hach	A090-070427-003	FT660 SC User Manual	x	x	x	x	VM277
VM278	Hach	A090-070427-004	sc200 Controller User Manual	x	x	x	x	VM278

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QP	Vendor	File	Description	Boonah	Kalbar	Forest Hill	Laidley	Link
VM279	Hach	A090-070427-005	1720E Users Manual	x	x	x	x	VM279
VM241	Harvel	A090-070414-001	Sch. 80 PVC-U Data Sheet	x	x	x	x	VM241
VM327	Hershey	A090-070438-001	Valve - Catalog 2011.05	x	x	x	x	VM327
VM242	Jaco	A090-070415-001	Compression Fittings Catalogue	x	x	x	x	VM242
VM212	Johnson Screens	A090-070403-001	S 12-69 Intake Screen Drawing	x	x	x	x	VM212
VM280	Kelco	A090-070428-001	F20 Modular Flow Switches Installation & Operating Guide Lines	x	x	x	x	VM280
VM243	Lowara	A090-070416-001	SHE Pumps Catalogue	x	x	x	x	VM243
VM244	Lowara	A090-070416-002	SHE Pumps Operating Instructions	x	x	x	x	VM244
VM245	Lowara	A090-070416-003	SV-CO-FH-FC-SH-CEF-COF - Safety Instructions	x	x	x	x	VM245
VM323	Maric	A090-070434-001	CFF Brochure	x	x	x	x	VM323
VM246	Merriman	A090-070417-001	Line Strainer 305	x				VM246
VM247	Merriman	A090-070417-002	Y-strainer	x				VM247
VM248	Pall	A090-070418-001	MF Fiber Information Sheet	x	x	x	x	VM248
VM322	Pall Beijing	A090-070433-001	Quality Documentation	x	x	x	x	VM322
VM318	Perfab	A090-070432-001	Material Data Record - Laidley				x	VM318
VM319	Perfab	A090-070432-002	Material Data Record - Forest Hill			x		VM319
VM320	Perfab	A090-070432-003	Material Data Record - Kalbar		x			VM320
VM321	Perfab	A090-070432-004	Material Data Record - Boonah	x				VM321
VM281	Rosemount	A090-070429-001	644H Temperature Transmitter with 4-20mA Hart Quick Start Guide	x	x	x	x	VM281
VM282	Rosemount	A090-070429-002	2088, 2090P & 2090F Pressure Transmitter with 4-20 mA Hart Quick Installation Guide	x	x	x	x	VM282
VM283	Rosemount	A090-070429-003	8700 Series Magnetic Flowmeter Sensors - Quick Intallation Guide	x	x	x	x	VM283
VM284	Rosemount	A090-070429-004	8732e Magnetic Flowmeter System - Quick Installaiton Guide	x	x	x	x	VM284
VM285	Rosemount	A090-070429-005	Declaration of Conformity	x	x	x	x	VM285
VM286	Rosemount	A090-070429-006	Magnetic 8732 Flowmeter Factory Configuration - Serial No 0354479	x	x	x	x	VM286
VM287	Rosemount	A090-070429-007	Magnetic 8732 Flowmeter Factory Configuration - Serial No 0354480	x	x	x	x	VM287
VM288	Rosemount	A090-070429-008	148TemperatureTransmitter_RevAA	x	x	x	x	VM288

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QP	Vendor	File	Description	Boonah	Kalbar	Forest Hill	Laidley	Link
VM289	Rosemount	A090-070429-009	644HeadandRailMountTemperatureTransmitters_RevJA	x	x	x	x	VM289
VM290	Rosemount	A090-070429-010	RTD&ThermcoupleAssemblies_RevBA		x	x	x	VM290
VM324	Solberg	A090-070435-001	F Series Filters	x	x	x	x	VM324
VM249	Spears	A090-070419-001	Saddle	x	x	x	x	VM249
VM250	Spears	A090-070419-002	Sch.80 Fittings	x	x	x	x	VM250
VM251	Spears	A090-070419-003	True Union Valves	x	x	x	x	VM251
VM252	Spears	A090-070419-004	Y-strainer	x	x	x	x	VM252
VM326	Spill Station Australia	A090-070437-001	Bunding Information	x	x	x	x	VM326
VM210	TEE	A090-070402-001	CIP Tank Heater - General Arrangement - TIH1001500	x			x	VM210
VM211	TEE	A090-070402-002	CIP Tank Heater - General Arrangement - TIH1001200	x	x	x		VM211
VM291	Vega	A090-070430-001	PLICCOM Operating instructions	x	x	x	x	VM291
VM292	Vega	A090-070430-002	Vegason 61 Operating Instructions	x	x	x	x	VM292
VM293	Vega	A090-070430-003	Vegason 61 Product Info	x	x	x	x	VM293
VM253	Wilden	A090-070420-001	P25 Manual	x	x	x	x	VM253
VM254	Wilden	A090-070420-002	Declaration of Conformity	x	x	x	x	VM254
VM334	Control IT	A0901-070401-001	Checklist MCP - Boonah	x				VM334
VM335	Control IT	A0901-070401-005	Commissioning MCP - Boonah	x				VM335
VM336	Control IT	A0901-070401-010	Compliance Certificate - Boonah	x				VM336
VM337	Control IT	A0902-070401-002	Checklist MCP - Kalbar		x			VM337
VM338	Control IT	A0902-070401-006	Commissioning MCP - Kalbar		x			VM338
VM339	Control IT	A0902-070401-011	Compliance Certificate - Kalbar		x			VM339
VM340	Control IT	A0903-070401-003	Checklist - MCP - Laidley				x	VM340
VM341	Control IT	A0903-070401-007	Commissioning MCP - Laidley				x	VM341
VM342	Control IT	A0903-070401-012	Compliance Certificate - Laidley				x	VM342
VM343	Control IT	A0903-070401-013	Cabinet & Panel Checklist - MCP - Laidley				x	VM343
VM344	Control IT	A0903-070401-014	Commissioning Checklist - MCP - Laidley				x	VM344
VM345	Control IT	A0904-070401-004	Checklist MCP - Forest Hill			x		VM345
VM346	Control IT	A0904-070401-008	Commissioning MCP - Forest Hill			x		VM346
VM347	Control IT	A0904-070401-015	Compliance Certificate - Forest Hill			x		VM347

COMPRESSION TUBE FITTINGS PRODUCT CATALOG & PRICE LIST

UNIQUE FITTINGS

MOLDED FROM

FOUR

CORROSION-

RESISTANT

THERMORESINS

JACO

EFFECTIVE MARCH 2006



www.jacomfg.com

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.

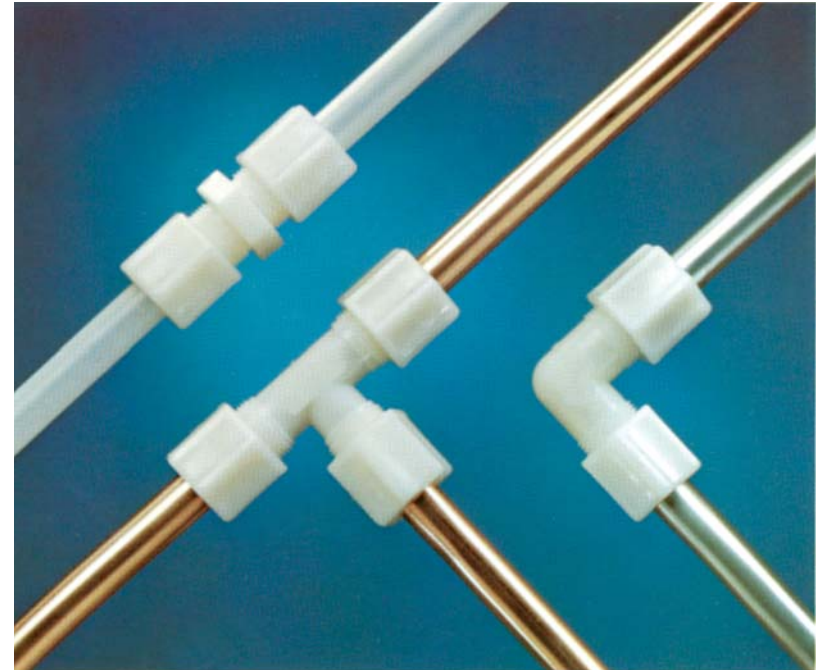
Compression type metallic fittings have a loose ferrule which requires extra assembly. JACO has been able to mold the sleeve as an integral part of the nut, eliminating the need for a two-piece assembly. Although fittings were originally developed for copper tubing, other fittings were then later

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.

CHEMICAL RESISTANCE OF JACO TUBE FITTINGS

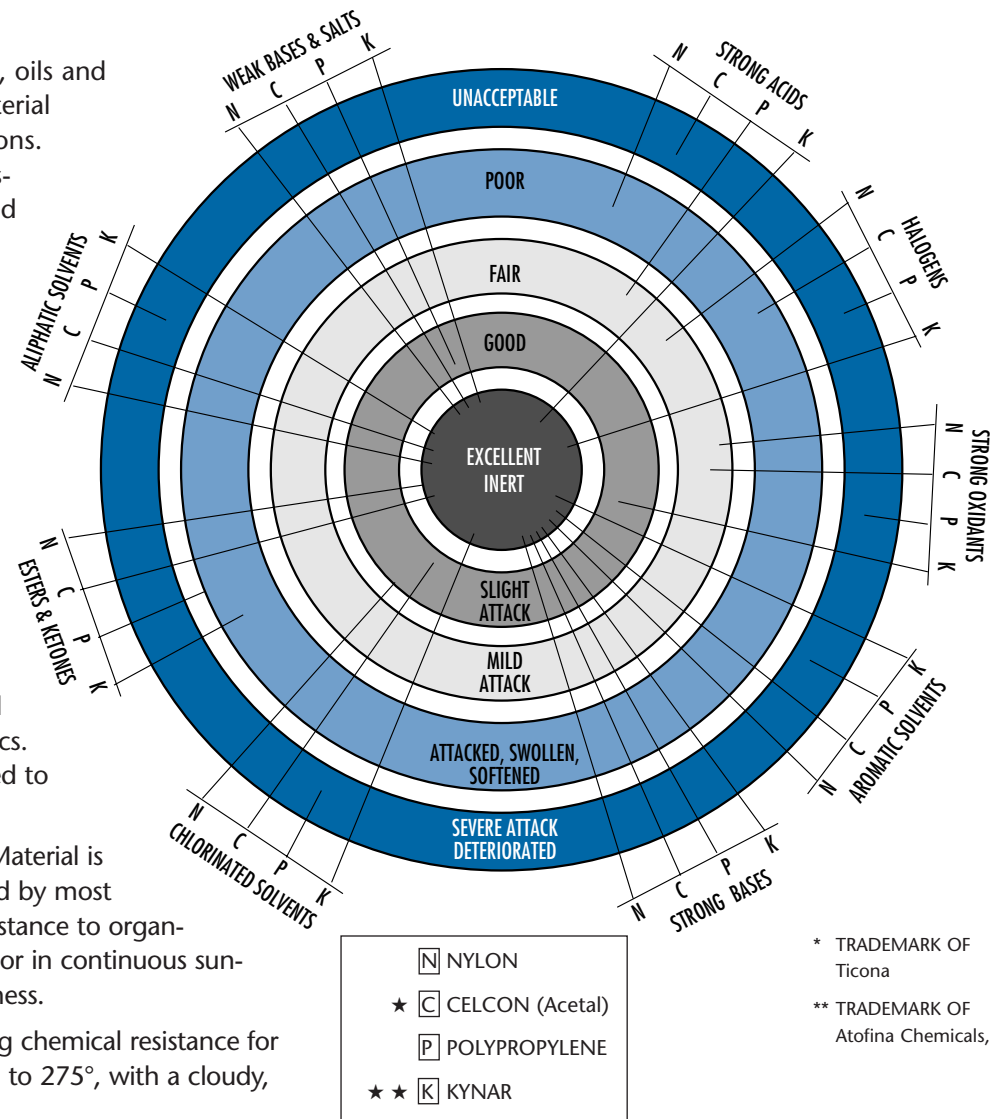
How to Select Materials

(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.

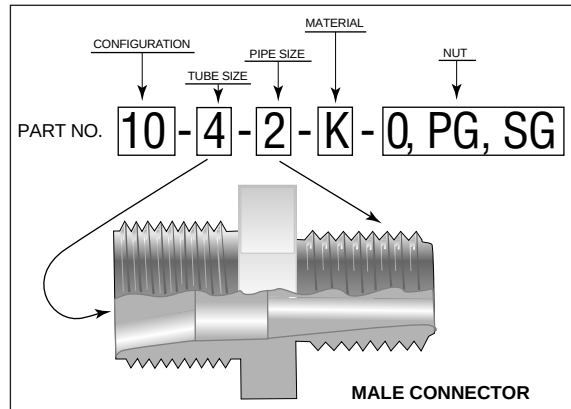


Operating temperatures of JACO Tube Fittings are regulated by ambient and fluid temperatures, type of fluid being carried, tubing type, and conditions of mechanical abuse. Temperatures listed are designated as material ratings only. Testing of complete fitting in customer application is recommended.

Active 09/09/2013

440-234-4000 Phone
800-229-JACO Toll-Free
440-234-7007 Fittings Fax
www.jacomfg.com

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.

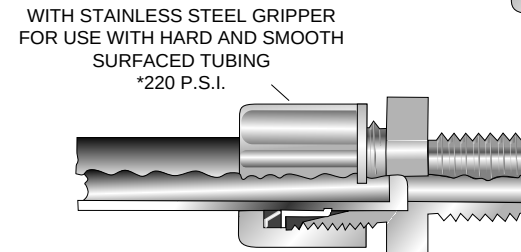
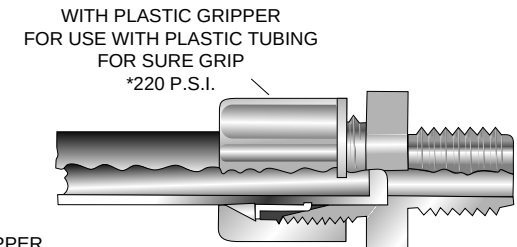
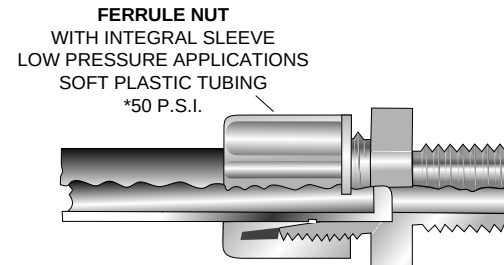
The letter following the numbers indicates the material:

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.



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.

Visit our Web Page:
www.jacomfg.com
 for the following information:

- Latest Part Information
- List of our Current Authorized Distributors
- Standard Pack Information

Terms

Prices subject to change without notice.
 Fittings are priced as complete units.
 Ordering Nuts and Bodies separately will not raise quantity to higher discount schedule.

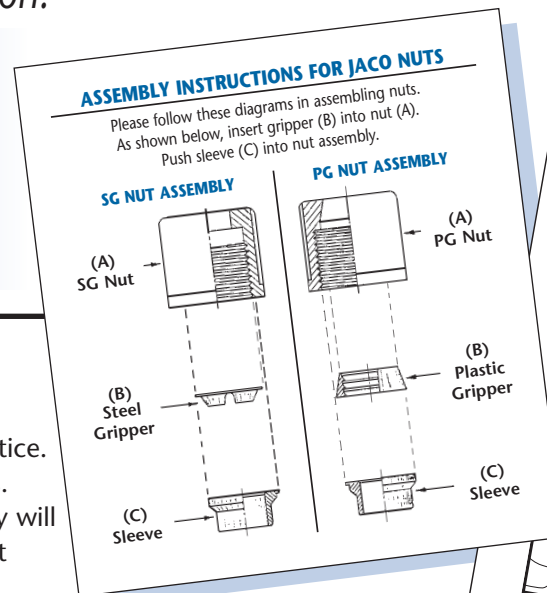
Pricing is based on per order per release.
 Discounts apply only to pack quantities.

TERMS: NET 30 Days

FREIGHT: F.O.B. Berea, Ohio U.S.A.

MINIMUM ORDER U.S.A. \$100.00 NET; FOREIGN \$150.00 NET

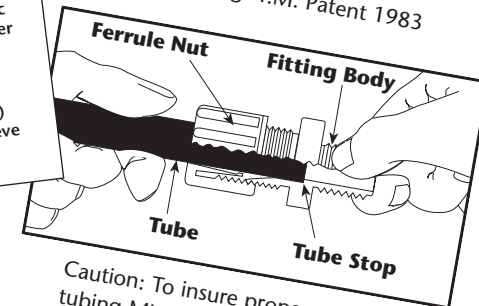
DISCOUNTS APPLY ONLY IF INVOICE TERMS ARE MET.



- 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

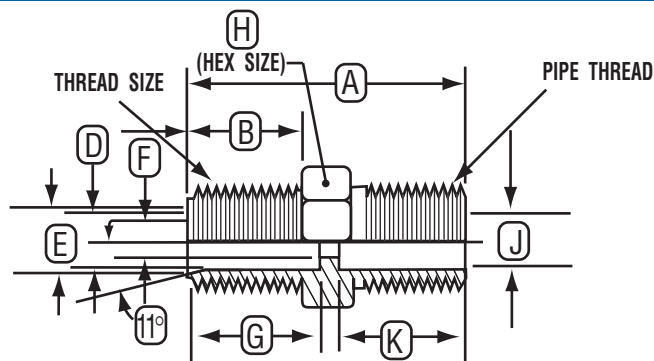


Caution: To insure proper assembly, tubing MUST be fully inserted into the fitting body to the tube stop.

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

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MALE CONNECTORS



JACO Part No. Prefix	LIST PRICE				SPECIFICATIONS											
	Standard Ferrule Nut		Plastic or Steel Gripper Nut		Tube O.D.	Pipe Thd.	Thread	A	B	D	E	F	G	H	J	K
	NYLON (N-O)	KYNAR	N-PG:SG	KYNAR												
	CELCON (C-O)	(K-O)	C-PG:SG	K-PG:SG												
	POLY (P-O)		P-PG:SG					± 1/64	± 1/64	+ .005 /.010		± .010	± 1/64	± 1/64	± 1/64	± 1/64
10-2-2	.43	2.28	N/A	N/A	1/8	1/8	5/16-24	7/8	5/16	.125	.175 - .180	.109	7/16	7/16	15/64	25/64
10-4-2	.49	2.61	.63	2.73	1/4	1/8	7/16-20	63/64	3/8	.250	.330 - .335	.170	15/32	5/8	3/16	15/32
10-4-4	.54	2.74	.67	2.85	1/4	1/4	7/16-20	1-3/16	11/32	.250	.330 - .335	.170	15/32	5/8	5/16	11/16
10-4-6	.56	3.25	.69	3.36	1/4	3/8	7/16-20	1-13/64	3/8	.250	.330 - .335	.170	15/32	13/16	3/8	43/64
10-5-2	.57	2.89	.68	3.01	5/16	1/8	1/2-20	1	3/8	.312	.380 - .385	.250	31/64	11/16	1/4	Thru
10-5-4	.59	2.96	.70	3.08	5/16	1/4	1/2-20	1-3/16	3/8	.312	.380 - .385	.232	31/64	11/16	5/16	41/64
10-6-2	.64	4.01	.80	4.06	3/8	1/8	5/8-20	1-9/64	15/32	.375	.460 - .465	.250	19/32	13/16	1/4	Thru
10-6-4	.65	4.13	.81	4.18	3/8	1/4	5/8-20	1-5/16	29/64	.375	.460 - .465	.312	19/32	13/16	5/16	Thru
10-6-6	.73	4.31	.89	4.36	3/8	3/8	5/8-20	1-11/32	29/64	.375	.460 - .465	.250	19/32	13/16	3/8	23/32
10-6-8	.89	4.89	1.04	4.94	3/8	1/2	5/8-20	1-19/32	15/32	.375	.460 - .465	.250	19/32	15/16	15/32	15/16
10-8-2	1.11	4.50	1.29	4.55	1/2	1/8	3/4-20	1-15/64	9/16	.500	.590 - .595	.250	11/16	15/16	1/4	Thru
10-8-4	1.14	5.48	1.33	5.53	1/2	1/4	3/4-20	1-27/64	9/16	.500	.590 - .595	.312	11/16	15/16	5/16	Thru
10-8-6	.89	4.94	1.08	4.99	1/2	3/8	3/4-20	1-15/32	9/16	.500	.590 - .595	.375	11/16	15/16	3/8	Thru
10-8-8	.95	5.27	1.14	5.32	1/2	1/2	3/4-20	1-5/8	9/16	.500	.590 - .595	.375	11/16	15/16	15/32	57/64
10-10-6	N/A	N/A	1.24	6.31	5/8	3/8	7/8-20	1-31/64	19/32	.625	.715 - .720	.375	45/64	1-1/16	3/8	Thru
10-10-8	N/A	N/A	1.26	6.58	5/8	1/2	7/8-20	1-5/8	19/32	.625	.715 - .720	.484	45/64	1-1/16	31/64	Thru
10-12-8	N/A	N/A	2.08	9.28	3/4	1/2	1-1/16-20	1-51/64	43/64	.750	.860 - .865	.500	13/16	1-5/16	1/2	Thru
10-12-12	N/A	N/A	2.16	9.57	3/4	3/4	1-1/16-20	1-5/16	43/64	.750	.860 - .865	.625	13/16	1-5/16	5/8	Thru
10-14-12	N/A	N/A	2.39	10.50	7/8	3/4	1-3/16-16	2	3/4	.875	.995 - 1.000	.625	7/8	1-7/16	5/8	Thru

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

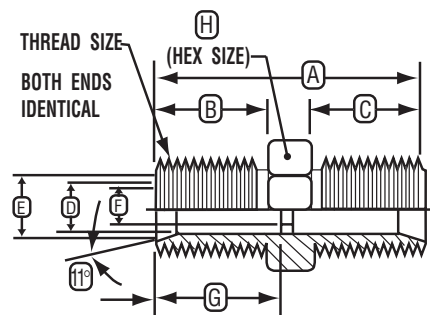
Sizes indicated are based on Celcon material (Acetal).

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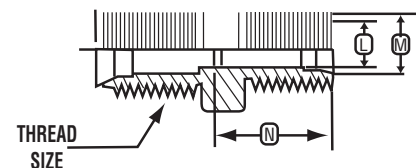
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UNION & REDUCING UNION CONNECTORS



Union Connectors



Reducing Unions

UNION
CONNECTORS

JACO Part No.	LIST PRICE			
	Standard Ferrule Nut		Plastic or Steel Gripper Nut	
	NYLON (N-O)	KYNAR (K-O)	N-PG;SG	KYNAR K-PG;SG
	CELCON (C-O)	(K-O)	C-PG;SG	P-PG;SG
15-4	.73	3.52	1.00	3.74
15-5	.82	4.23	1.04	4.47
15-6	1.03	5.94	1.35	6.04
15-8	1.35	7.47	1.72	7.57
15-10	N/A	N/A	2.00	9.33
15-12	N/A	N/A	3.22	12.04
15-14	N/A	N/A	3.73	13.83

SPECIFICATIONS								
Tube O.D.	Thread	A	B	D	E	F	G	H
		± 1/64	± 1/64	+.005/ .010		± .010	± 1/64	± 1/64
1/4	7/16-20	63/64	3/8	.250	.330 - .335	.170	15/32	5/8
5/16	1/2-20	1-1/32	25/64	.312	.380 - .385	.232	31/64	11/16
3/8	5/8-20	1-15/64	15/32	.375	.460 - .465	.250	19/32	13/16
1/2	3/4-20	1-7/16	9/16	.500	.590 - .595	.375	11/16	15/16
5/8	7/8-20	1-1/2	19/32	.625	.715 - .720	.500	45/64	1-1/16
3/4	1-1/16-20	1-3/4	43/64	.750	.860 - .865	.625	13/16	1-5/16
7/8	1-3/16-16	1-57/64	3/4	.875	.995 - 1.000	.750	7/8	1-7/16

REDUCING
UNIONS

JACO Part No.	LIST PRICE			
	Standard Ferrule Nut		Plastic or Steel Gripper Nut	
	NYLON (N-O)	KYNAR (K-O)	N-PG;SG	KYNAR K-PG;SG
	CELCON (C-O)	(K-O)	C-PG;SG	P-PG;SG
15-4-2	.73	3.23	N/A	N/A
15-5-4	.78	3.68	1.03	3.91
15-6-4	.95	4.96	1.24	5.12
15-8-6	1.20	7.08	1.54	7.18
15-10-6	N/A	N/A	1.81	8.18
15-10-8	N/A	N/A	1.96	8.68
15-14-10	N/A	N/A	3.57	12.93

SPECIFICATIONS													
Tube O.D.	Thd.	Thread	A	B	C	D	E	F	G	H	L	M	N
			± 1/64	± 1/64	± 1/64	+.005/ .010		± 1/64	± 1/64	± 1/64	+.005/ .010		± 1/64
1/4 - 1/8	7/16-20	5/16-24	59/64	3/8	5/16	.250	.330 - .335	.109	15/32	5/8	.125	.175 - .180	7/16
5/16 - 1/4	1/2-20	7/16-20	1	3/8	3/8	.312	.380 - .385	.170	31/64	11/16	.250	.330 - .335	15/32
3/8 - 1/4	5/8-20	7/16-20	1-3/16	29/64	29/64	.375	.460 - .465	.170	19/32	13/16	.250	.330 - .335	15/32
1/2 - 3/8	3/4-20	5/8-20	1-5/16	9/16	29/64	.500	.590 - .595	.250	11/16	15/16	.375	.460 - .465	19/32
5/8 - 3/8	7/8-20	5/8-20	1-23/64	19/32	15/32	.625	.715 - .720	.250	45/64	1-1/16	.375	.460 - .465	19/32
5/8 - 1/2	7/8-20	3/4-20	1-15/32	19/32	9/16	.625	.715 - .720	.375	45/64	1-1/16	.500	.590 - .595	11/16
7/8 - 5/8	1-3/16-16	7/8-20	1-21/32	3/4	17/32	.875	.995 - 1.000	.500	7/8	1-7/16	.625	.715 - .720	45/64

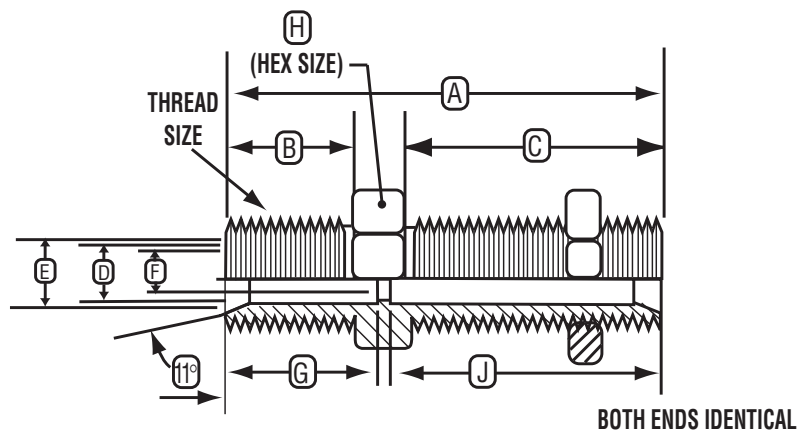
N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

Sizes indicated are based on Celcon material (Acetal).

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BULKHEAD UNIONS



JACO Part No.	LIST PRICE				SPECIFICATIONS										
	Standard Ferrule Nut		Plastic or Steel Gripper Nut		Tube O.D.	Thread	A	B	C	D	E	F	G	H	J
	NYLON (N-O)	KYNAR (K-O)	N-PG;SG	KYNAR C-PG;SG											
	POLY (P-O)		P-PG;SG												
20-4	1.08	4.82	1.35	5.04	1/4	7/16-20	1-31/64	23/64	7/8	.250	.330 - .335	.170	15/32	5/8	31/32
20-5	1.17	5.25	1.40	5.50	5/16	1/2-20	1-5/8	23/64	63/64	.312	.380 - .385	.232	31/64	11/16	1-3/32
20-6	1.39	7.71	1.70	7.81	3/8	5/8-20	1-49/64	29/64	1-1/64	.375	.460 - .465	.250	19/32	13/16	1-1/8
20-8	1.86	8.89	2.23	8.99	1/2	3/4-20	1-7/8	35/64	1-3/64	.500	.590 - .595	.375	11/16	15/16	1-9/64
20-12	N/A	N/A	3.88	13.56	3/4	1-1/16-20	2-13/64	43/64	1-11/32	.750	.860 - .865	.625	13/16	1-5/16	1-15/32

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

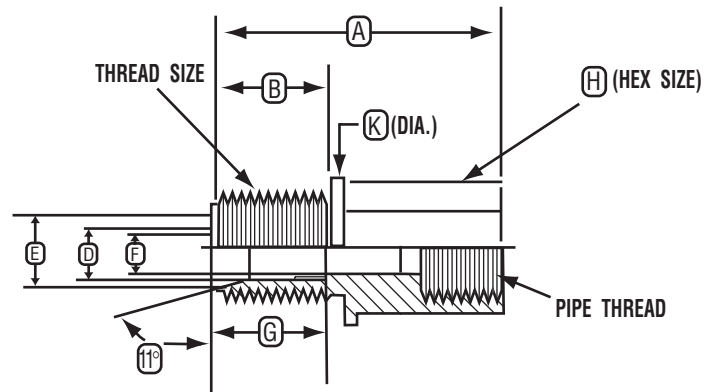
Sizes indicated are based on Celcon material (Acetal).

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FEMALE CONNECTORS



JACO Part No.	LIST PRICE				SPECIFICATIONS										
	Standard Ferrule Nut NYLON (N-O) CELCON (C-O) POLY (P-O)	KYNAR (K-O)	Plastic or Steel Gripper Nut N-PG;SG C-PG;SG P-PG;SG	KYNAR K-PG;SG	Tube O.D.	Pipe Thd.	Thread	A	B	D	E	F	G	H	K
								$\pm 1/64$	$\pm 1/64$	$+0.005/.010$		$\pm .010$	$\pm 1/64$	$\pm 1/64$	$\pm 1/64$
25-4-2	.66	2.61	.80	2.73	1/4	1/8	7/16-20	59/64	23/64	.250	.330 - .335	.170	15/32	43/64	25/64
25-4-4	.69	2.84	.83	2.95	1/4	1/4	7/16-20	1-3/32	3/8	.250	.330 - .335	.170	15/32	51/64	29/32
25-5-4	.75	3.07	.87	3.19	5/16	1/4	1/2-20	1-7/32	15/32	.312	.380 - .385	.232	31/64	3/4	13/16
25-6-4	.84	4.13	.99	4.18	3/8	1/4	5/8-20	1-13/64	29/64	.375	.460 - .465	.250	9/16	3/4	13/16
25-6-6	.87	4.18	1.02	4.23	3/8	3/8	5/8-20	1-7/32	15/32	.375	.460 - .465	.250	19/32	15/16	N/A
25-6-8	1.00	4.76	1.16	4.81	3/8	1/2	5/8-20	1-17/64	15/32	.375	.460 - .465	.250	19/32	1-1/16	N/A
25-8-6	.99	4.84	1.18	4.89	1/2	3/8	3/4-20	1-9/32	39/64	.500	.590 - .595	.375	11/16	15/16	N/A
25-8-8	1.07	5.15	1.25	5.20	1/2	1/2	3/4-20	1-9/32	9/16	.500	.590 - .595	.375	11/16	1-1/16	N/A
25-10-8	N/A	N/A	1.94	6.09	5/8	1/2	7/8-20	1-1/2	11/16	.625	.715 - .720	.500	45/64	1-1/16	N/A

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

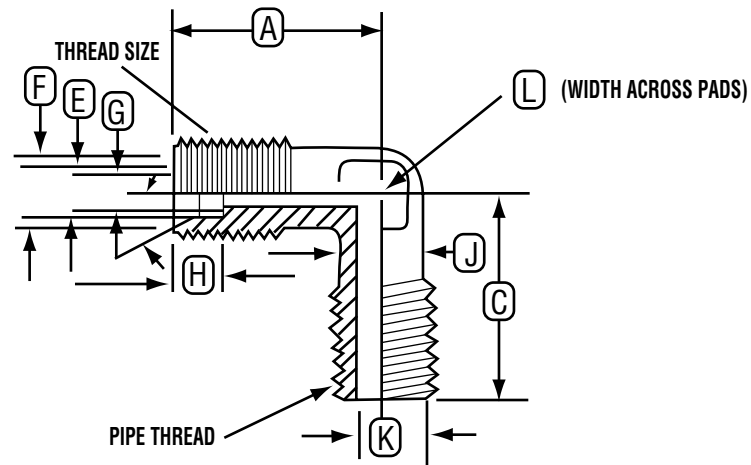
Sizes indicated are based on Celcon material (Acetal).

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MALE ELBOWS



JACO Part No.	LIST PRICE				SPECIFICATIONS											
	Standard Ferrule Nut		Plastic or Steel Gripper Nut		Tube O.D.	Pipe Thr.	Thread	A	C	E + .005 /.010	F	G	H	J	K	L
	NYLON (N-O)	KYNAR (K-O)	N-PG;SG	KYNAR K-PG;SG												
	CELCON (C-O)		C-PG;SG													
	POLY (P-O)		P-PG;SG				± 1/64	± 1/64			± .010	± 1/64	± 1/64	± 1/64	± 1/64	± 1/64
40-2-2	.75	2.60	N/A	N/A	1/8	1/8	5/16-24	9/16	5/8	.125	.175 - .180	.109	7/16	1/4	13/16	1/4
40-4-2	.77	2.77	.91	2.88	1/4	1/8	7/16-20	13/16	13/16	.250	.330 - .335	.170	15/32	3/8	.250	3/8
40-4-4	.78	2.84	.92	2.95	1/4	1/4	7/16-20	13/16	1-1/64	.250	.330 - .335	.218	15/32	3/8	9/32	3/8
40-4-6	.93	4.30	1.07	4.41	1/4	3/8	7/16-20	55/64	1-1/32	.250	.330 - .335	.218	15/32	35/64	3/8	35/64
40-5-2	.87	3.02	.98	3.14	5/16	1/8	1/2-20	29/32	29/32	.312	.380 - .385	.232	31/64	7/16	1/4	7/16
40-5-4	.88	3.22	.99	3.34	5/16	1/4	1/2-20	29/32	1-5/64	.312	.380 - .385	.232	31/64	7/16	1/4	7/16
40-6-4	.98	4.23	1.14	4.28	3/8	1/4	5/8-20	15/16	1-1/32	.375	.460 - .465	.250	19/32	37/64	5/16	37/64
40-6-6	1.02	4.31	1.18	4.36	3/8	3/8	5/8-20	15/16	1-1/32	.375	.460 - .465	.250	19/32	9/16	3/8	9/16
40-8-4	1.09	4.97	1.27	5.02	1/2	1/4	3/4-20	1-3/32	1-1/8	.500	.590 - .595	.375	11/16	11/16	5/16	11/16
40-8-6	1.18	5.04	1.37	5.09	1/2	3/8	3/4-20	1-5/64	1-1/8	.500	.590 - .595	.375	11/16	11/16	3/8	11/16
40-8-8	1.19	5.59	1.38	5.64	1/2	1/2	3/4-20	1-1/16	1-1/4	.500	.590 - .595	.375	11/16	11/16	3/8	11/16
40-10-6	N/A	N/A	1.61	6.54	5/8	3/8	7/8-20	1-17/64	1-17/64	.625	.715 - .720	.500	45/64	13/16	3/8	55/64
40-10-8	N/A	N/A	1.66	6.53	5/8	1/2	7/8-20	1-9/32	1-29/64	.625	.715 - .720	.500	45/64	13/16	1/2	55/64

N = NYLON C = CELCON (Acetal)
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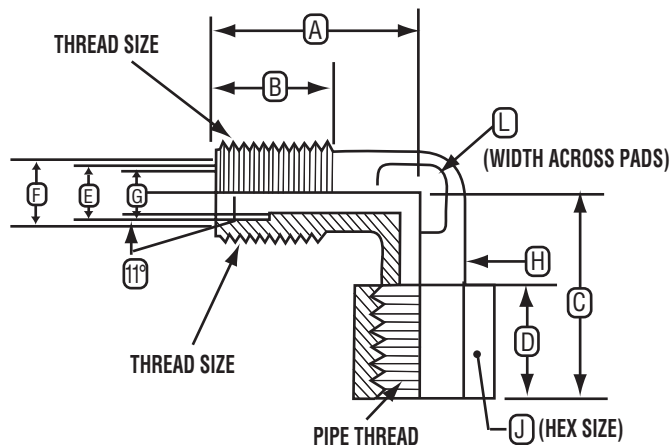
Sizes indicated are based on Celcon material (Acetal).

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FEMALE ELBOWS



JACO Part No.	LIST PRICE				SPECIFICATIONS												
	Standard Ferrule Nut		Plastic or Steel Gripper Nut		Tube O.D.	Pipe Thd.	Thread	A	B	C	D	E +.005/ .010	F	G	H	J	I
	NYLON (N-O)	KYNAR	N-PG;SG	KYNAR													
	CELCON (C-O)	(K-O)	C-PG;SG	K-PG;SG													
	POLY (P-O)		P-PG;SG														
45-2-4	.97	2.73	N/A	N/A	1/8	1/4	5/16-24	51/64	7/16	31/32	11/16	.125	.175 - .180	.109	23/64	43/64	23/64
45-4-2	1.00	2.89	1.14	3.00	1/4	1/8	7/16-20	13/16	15/32	3/4	1/2	.250	.330 - .335	.170	3/8	9/16	3/8
45-4-4	1.02	3.05	1.16	3.16	1/4	1/4	7/16-20	13/16	15/32	31/32	43/64	.250	.330 - .335	.170	3/8	51/64	3/8
45-5-4	1.17	3.33	1.28	3.46	5/16	1/4	1/2-20	15/16	31/64	1	11/16	.312	.380 - .385	.232	7/16	25/32	7/16
45-6-4	1.23	4.39	1.39	4.44	3/8	1/4	5/8-20	1	19/32	1-1/64	11/16	.375	.460 - .465	.250	9/16	13/16	9/16
45-6-6	1.40	4.50	1.55	4.55	3/8	3/8	5/8-20	15/16	19/32	1-1/32	11/16	.375	.460 - .465	.250	9/16	13/16	9/16
45-8-6	1.63	5.59	1.81	5.64	1/2	3/8	3/4-20	1-1/16	11/16	1-1/64	13/16	.500	.590 - .595	.375	11/16	29/32	45/64
45-8-8	1.90	5.92	2.08	5.97	1/2	1/2	3/4-20	1-1/16	11/16	1-21/64	13/16	.500	.590 - .595	.375	11/16	29/32	45/64
45-10-8	N/A	N/A	2.66	6.86	5/8	1/2	7/8-20	1-25/64	45/64	1-1/16	1-1/16	.625	.715 - .720	.500	13/16	1-1/16	13/16

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

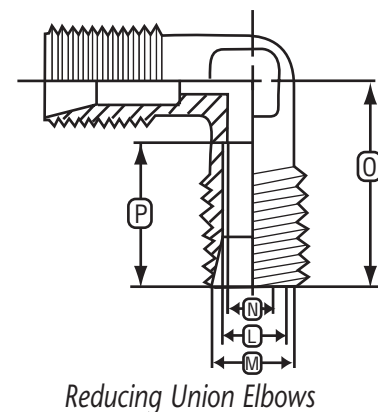
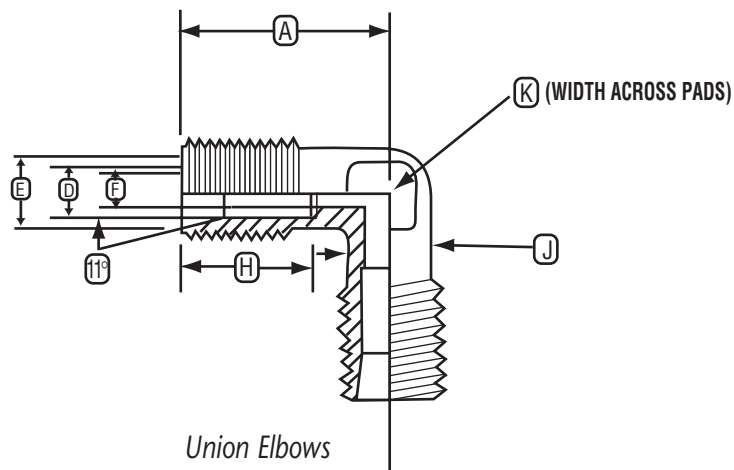
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UNION & REDUCING ELBOWS

UNION
ELBOWS

JACO Part No.	LIST PRICE			
	Standard Ferrule Nut		Plastic or Steel Gripper Nut	
	NYLON (N-O)	KYNAR	N-PG;SG	KYNAR
	CELCON (C-O)	(K-O)	C-PG;SG	K-PG;SG
50-4	1.01	3.52	1.28	3.74
50-5	1.12	3.85	1.35	4.10
50-6	1.39	5.94	1.70	6.04
50-8	1.71	7.67	2.08	7.77
50-10	N/A	N/A	3.47	9.38
50-12	N/A	N/A	5.11	13.82
50-14	N/A	N/A	5.80	17.09

SPECIFICATIONS								
Tube O.D.	Thread	A	D	E	F	H	J	K
		± 1/64	+.005/ .010		± 1/64	+/- 1/64	± 1/64	± 1/64
1/4	7/16-20	13/16	.250	.330 - .335	.170	15/32	3/8	3/8
5/16	1/2-20	29/32	.312	.380 - .385	.232	31/64	7/16	7/16
3/8	5/8-20	15/16	.375	.460 - .465	.250	19/32	9/16	9/16
1/2	3/4-20	1-1/16	.500	.590 - .595	.375	11/16	11/16	45/64
5/8	7/8-20	1-1/4	.625	.715 - .720	.500	45/64	13/16	55/64
3/4	1-1/16	1-35/64	.750	.860 - .865	.625	13/16	1	1
7/8	1-3/16-16	1-9/16	.875	.995 - 1.000	.750	7/8	1-1/8	1-3/16

REDUCING
UNION
ELBOWS

JACO Part No.	LIST PRICE			
	Standard Ferrule Nut		Plastic or Steel Gripper Nut	
	NYLON (N-O)	KYNAR	N-PG;SG	KYNAR
	CELCON (C-O)	(K-O)	C-PG;SG	K-PG;SG
50-14-10	N/A	N/A	5.87	17.28

SPECIFICATIONS												
Tube O.D.	Thread	A	D	E	F	H	J	K	L	M	N	O
		± 1/64	+.005/ .010		± 1/64	± 1/64	± 1/64	± 1/64	+.005/ .010		±.010	± 1/64 ± 1/64
7/8 - 5/8	1-3/16-20 - 7/8-20	1-9/16	.875	.995 - 1.000	.750	7/8	1 1/8	1-3/16	.625	.715 - .720	.500	1-29/64 45/64

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

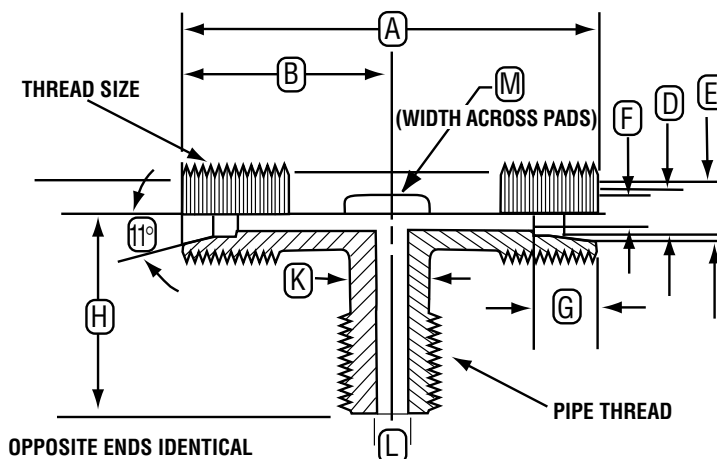
Sizes indicated are based on Celcon material (Acetal).

Active 09/09/2013

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MALE BRANCH TEES



JACO Part No.	LIST PRICE				SPECIFICATIONS												
	Standard Ferrule Nut		Plastic or Steel Gripper Nut		Tube O.D.	Pipe Thd.	Thread	A	B	D +.005/ .010	E	F	G	H	K	L	M
	NYLON (N-O)	KYNAR (K-O)	N-PG;SG	KYNAR													
	CELCON (C-O)	(K-O)	C-PG;SG	K-PG;SG													
	POLY (P-O)		P-PG;SG														
60-4-2	1.03	3.75	1.30	3.97	1/4	1/8	7/16-20	1-29/64	47/64	.250	.330 - .335	.170	15/32	3/4	3/8	1/4	3/8
60-4-4	1.27	3.90	1.54	4.13	1/4	1/4	7/16-20	1-15/32	47/64	.250	.330 - .335	.170	15/32	59/64	3/8	5/16	3/8
60-5-4	1.43	4.29	1.66	4.53	5/16	1/4	1/2-20	1-39/64	13/16	.312	.380 - .385	.232	31/64	63/64	7/16	9/32	7/16
60-6-4	1.49	6.53	1.80	6.63	3/8	1/4	5/8-20	1-15/16	31/32	.375	.460 - .465	.250	19/32	1-1/16	9/16	5/16	9/16
60-6-6	1.53	6.64	1.85	6.74	3/8	3/8	5/8-20	1-29/32	61/64	.375	.460 - .465	.250	19/32	1-3/32	1/2	3/8	1/2
60-8-6	1.96	8.22	2.33	8.32	1/2	3/8	3/4-20	2-13/64	1-7/64	.500	.590 - .595	.375	11/16	1-5/32	43/64	25/64	43/64
60-8-8	2.00	8.76	2.38	8.87	1/2	1/2	3/4-20	2-7/32	1-1/8	.500	.590 - .595	.375	11/16	1-21/64	5/8	31/64	39/64
60-10-8	N/A	N/A	2.71	11.25	5/8	1/2	7/8-20	2-17/32	1-1/4	.625	.715 - .720	.500	45/64	1-7/16	13/16	1/2	13/16
60-12-8	N/A	N/A	3.94	17.21	3/4	1/2	1-1/16-20	3-7/64	1-9/16	.750	.860 - .865	.625	13/16	1-41/64	1-1/16	9/16	1-1/16
60-12-12	N/A	N/A	4.01	17.39	3/4	3/4	1-1/16-20	3-7/64	1-9/16	.750	.860 - .965	.625	13/16	1-41/64	1-1/16	11/16	1-1/16
60-14-12	N/A	N/A	4.31	19.50	7/8	3/4	1-3/16-20	3-3/32	1-35/64	.875	.995 - 1.000	.750	7/8	1-5/8	1-3/16	11/16	1-3/16

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

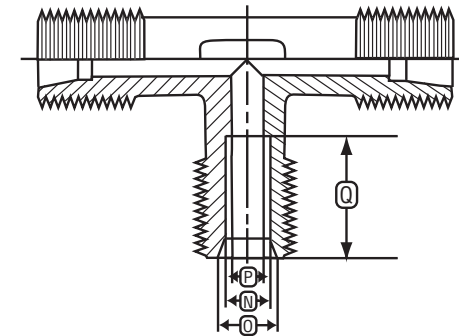
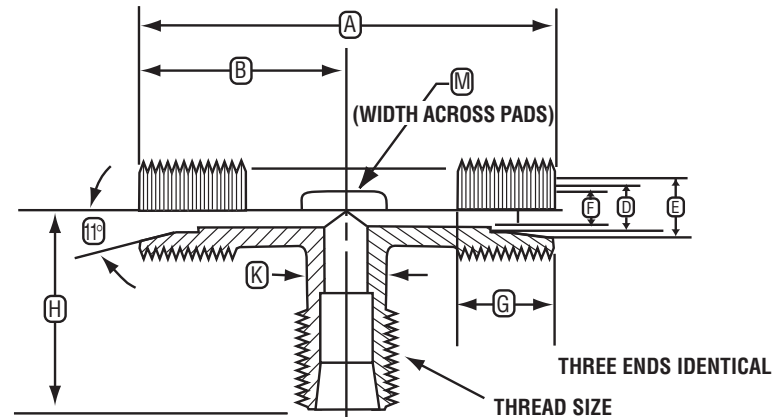
Sizes indicated are based on Celcon material (Acetal).

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UNION TEES



JACO Part No.	LIST PRICE			
	Standard Ferrule Nut		Plastic or Steel Gripper Nut	
	NYLON (N-O)	KYNAR	N-PG;SG	KYNAR
	CELCON (C-O)	(K-O)	C-PG;SG	K-PG;SG
70-2	1.11	3.85	N/A	N/A
70-4	1.27	4.65	1.68	4.99
70-5	1.41	5.21	1.75	5.58
70-6	1.75	8.35	2.22	8.50
70-8	2.11	10.41	2.67	10.56
70-10	N/A	N/A	2.90	13.73
70-12	N/A	N/A	4.97	24.79
70-14	N/A	N/A	5.28	27.51
70-10-6	N/A	N/A	2.76	13.11
70-14-10	N/A	N/A	5.88	28.90
70-14-10-10	N/A	N/A	6.15	31.64

SPECIFICATIONS														
Tube O.D.	Thread	A	B	D	E	F	G	H	K	M	N	O	P	Q
		$\pm 1/64$	$\pm 1/64$	$+.005/.010$		$\pm 1/64$	$\pm 1/64$	$\pm 1/64$	$\pm 1/64$	$\pm 1/64$	$+.005/.010$		$\pm .010$	$\pm 1/64$
1/8	5/16-24	1-1/8	9/16	.125	.175 - .180	.109	7/16	17/32	1/4	1/4	N/A	N/A	N/A	N/A
1/4	7/16-20	1-7/16	47/64	.250	.330 - .335	.218	15/32	23/32	3/8	23/64	N/A	N/A	N/A	N/A
5/16	1/2-20	1-19/32	13/16	.312	.380 - .385	.232	31/64	13/16	7/16	29/64	N/A	N/A	N/A	N/A
3/8	5/8-20	1-59/64	31/32	.375	.460 - .465	.250	19/32	31/32	35/64	35/64	N/A	N/A	N/A	N/A
1/2	3/4-20	2-1/8	1-1/16	.500	.590 - .595	.375	11/16	1-1/16	43/64	11/16	N/A	N/A	N/A	N/A
5/8	7/8-20	2-35/64	1-17/64	.625	.715 - .720	.500	45/64	1-1/4	53/64	53/64	N/A	N/A	N/A	N/A
3/4	1-1/16-20	3-3/32	1-35/64	.750	.860 - .865	.625	13/16	1-35/64	1	1-1/16	N/A	N/A	N/A	N/A
7/8	1-3/16-16	3-3/32	1-35/64	.875	.995 - 1.000	.750	7/8	1-35/64	1-1/8	1-3/16	N/A	N/A	N/A	N/A
5/8 - 3/8	7/8-20 - 5/8-20	2-17/32	1-17/64	.625	.715 - .720	.500	45/64	1-9/64	13/16	13/16	.375	.460 - .465	.250	19/32
7/8 - 5/8	1-3/16-16 - 7/8-20	3-3/32	1-35/64	.875	.995 - 1.000	.750	7/8	1-7/16	1-9/64	1-5/32	.625	.715 - .720	.500	45/64
7/8 - 5/8	1-3/16-16 - 7/8-20	3-1/64	1-29/64	.875	.995 - 1.000	.500	7/8	1-7/16	1-9/64	1-5/32	.625	.715 - .720	.500	45/64

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

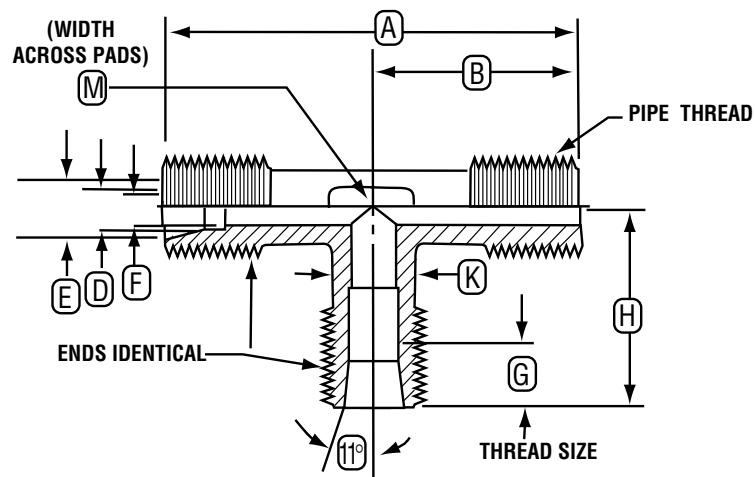
Sizes indicated are based on Celcon
material (Acetal).

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MALE RUN TEES



JACO Part No.	LIST PRICE				SPECIFICATIONS											
	Standard Ferrule Nut		Plastic or Steel Gripper Nut		Tube O.D.	Pipe Thd.	Thread	A	B	D +.005/ .010	E	F	G	H	K	M
	NYLON (N-O)	KYNAR	N-PG;SG	KYNAR												
	CELCON (C-O)	(K-O)	C-PG;SG	K-PG;SG												
	POLY (P-O)		P-PG;SG													
75-4-2	1.03	3.75	1.30	3.97	1/4	1/8	7/16-20	1-15/32	3/4	.250	.330 - .335	.170	15/32	47/64	3/8	23/64
75-4-4	1.27	3.90	1.54	4.13	1/4	1/4	7/16-20	1-21/32	15/16	.250	.330 - .335	.170	15/32	47/64	3/8	3/8
75-5-4	1.43	4.31	1.66	4.55	5/16	1/4	1/2-20	1-3/16	1-1/64	.312	.380 - .385	.232	31/64	13/16	7/16	7/16
75-6-4	1.49	6.53	1.80	6.63	3/8	1/4	5/8-20	2	1-3/64	.375	.460 - .465	.250	19/32	31/32	35/64	35/64
75-6-6	1.53	6.65	1.85	6.75	3/8	3/8	5/8-20	2-1/8	1-3/32	.375	.460 - .465	.250	19/32	31/32	37/64	37/64
75-8-6	1.96	8.22	2.33	8.32	1/2	3/8	3/4-20	2-1/4	1-9/64	.500	.590 - .595	.375	11/16	1-7/64	11/16	11/16
75-8-8	2.00	8.76	2.38	8.87	1/2	1/2	3/4-20	2-3/8	1-9/32	.500	.590 - .595	.375	11/16	1-3/32	21/32	43/64
75-10-8	N/A	N/A	2.71	11.25	5/8	1/2	7/8-20	2-47/64	1-15/32	.625	.715 - .720	.500	45/64	1-1/4	13/16	13/16
75-12-8	N/A	N/A	3.97	17.21	3/4	1/2	1-1/16-20	3-3/16	1-39/64	.750	.860 - .865	.625	13/16	1-37/64	1	1-3/64
75-12-12	N/A	N/A	3.99	17.39	3/4	3/4	1-1/16-20	3-3/16	1-5/8	.750	.860 - .865	.625	13/16	1-9/16	1	1-3/64
75-14-12	N/A	N/A	4.31	19.50	7/8	3/4	1-3/16-16	3-3/16	1-5/8	.875	.995 - 1.000	.750	7/8	1-9/16	1-1/8	1-3/16

N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

Sizes indicated are based on Celcon
material (Acetal).

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COMPRESSION NUTS

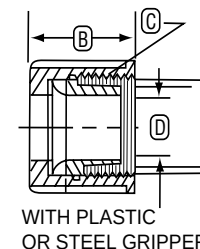
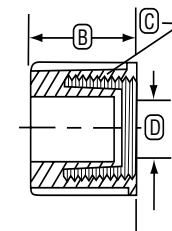
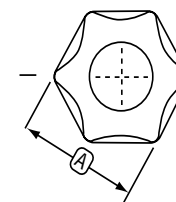
Ferrule Nuts with Integral Sleeve

	LIST PRICE		SPECIFICATIONS					
JACO Part No.	Nylon	Celcon Poly	KYNAR	Tube O.D.	A ±1/64	B ±1/64	C THD	D +.005/ .010
0-2	.21	.74		1/8	7/16	33/64	5/16-24	.125
0-4	.24	.91		1/4	5/8	5/8	7/16-20	.250
0-5	.29	1.02		5/16	45/64	11/16	1/2-20	.312
0-6	.32	1.82		3/8	13/16	47/64	5/8-20	.375
0-8	.40	2.20		1/2	15/16	7/8	3/4-20	.500



Plastic Gripper Nuts

JACO Part No.	LIST PRICE		SPECIFICATIONS				
	Nylon		Tube	A	B	C	D
	Celcon Poly	KYNAR	O.D.	±1/64	±1/64	THD	+.005/ .010
	PG-4	.38 1.02	1/4	5/8	43/64	7/16-20	.250
	PG-5	.40 1.14	5/16	11/16	47/64	1/2-20	.312
	PG-6	.47 1.87	3/8	13/16	23/32	5/8-20	.375
	PG-8	.59 2.25	1/2	15/16	7/8	3/4-20	.500
	PG-10	.64 3.03	5/8	1-7/64	7/8	7/8-20	.625
	PG-12	1.22 4.25	3/4	1-5/16	1	1-1/16-20	.750
PG-14	1.34 4.88	7/8	1-7/16	1-1/8	1-3/16-16	.875	



Stainless Steel Gripper Nuts

JACO Part No.	LIST PRICE		SPECIFICATIONS					
	Nylon		Tube O.D.	A ±1/64	B ±1/64	C THD	D +.005/ .010	
	Celcon Poly	KYNAR						
	SG-4	.38	1.02	1/4	5/8	43/64	7/16-20	.250
	SG-5	.40	1.14	5/16	11/16	47/64	1/2-20	.312
	SG-6	.47	1.87	3/8	13/16	23/32	5/8-20	.375
	SG-8	.59	2.25	1/2	15/16	55/64	3/4-20	.500
	SG-10	.64	3.03	5/8	1-1/8	7/8	7/8-20	.625
	SG-12	1.22	4.25	3/4	1-5/16	1	1-1/16-20	.750
	SG-14	1.34	4.88	7/8	1-7/16	1-1/8	1-3/16-16	.875

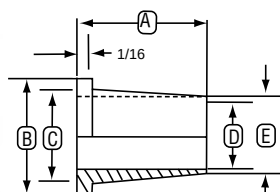
N = NYLON C = CELCON (Acetal)
P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

Sizes indicated are based on Celcon
material (Acetal).

Active 09/09/2013

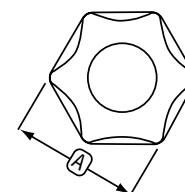
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Inserts*



JACO Part No.	LIST PRICE		SPECIFICATIONS					
			Tube	A	B	C	D	E
	Nylon		O.D.	± 1/64		± .005	±.005	±.005
	Celcon Poly	KYNAR						
P-4	.09	.16	1/4	3/8	.240 - .250	.199	1/8	.167
P-5	.11	.17	5/16	13/32	.300 - .312	.217	9/64	.180
P-6	.13	.19	3/8	1/2	.360 - .370	.245 - .250	.200	.235
P-8	.17	.25	1/2	9/16	.475 - .490	.370 - .375	.300	.350

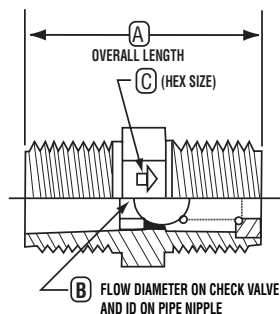
Blind Nuts



JACO Part No.	LIST PRICE		SPECIFICATIONS				
	Nylon		A	B	C	D	E
	Celcon Poly	KYNAR	±1/64	±1/64	±.005	THD	±1°
0-2 BLD	.26	.86	7/16	33/64	.170	5/16-24	3°
0-4 BLD	.30	1.01	5/8	5/8	.300	7/16-20	3°
0-5 BLD	.34	1.13	11/16	11/16	.370	1/2-20	3°
0-6 BLD	.37	1.94	13/16	47/64	.455	5/8-20	3°
0-8 BLD	.46	2.31	15/16	7/8	.575	3/4-20	3°

*These items are offered in addition to our standard fitting product line. Standard discount schedule applies based upon total number of items ordered and are not subject to combined pricing with our standard fitting line.

Pipe * Nipples



JACO Part No.	LIST PRICE		SPECIFICATIONS			
	Celcon	KYNAR	Male Pipe NPT	A ±1/64	B ±1/64	C ±1/64
PN-2	.21	1.55	1/8	1	7/32	7/16
PN-4	.28	1.83	1/4	1-13/32	21/64	5/8
PN-6	.41	2.49	3/8	1-1/2	25/64	13/16
PN-8	.54	3.08	1/2	1-51/64	33/64	15/16

KYNAR Check Valves*

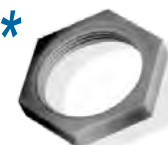
- Viton "O" Ring
- Stainless Ball & Spring
- Maximum Operating Temp. 220 P.S.I. @ 180° F
- Cracking Pressure 1-2.5 P.S.I.

- Zero Leakage
- Male Pipe NPT Style



JACO Part No.	LIST PRICE		SPECIFICATIONS			
	KYNAR		Male Pipe NPT	A ±1/64	B ±1/64	C ±1/64
CV-2 K	8.73		1/8	1	3/32	7/16
CV-4 K	9.29		1/4	1-13/32	3/16	5/8
CV-6 K	9.90		3/8	1-1/2	1/4	13/16
CV-8 K	11.17		1/2	1-51/64	11/32	15/16

Bulkhead Nuts*



JACO Part No.	LIST PRICE	
	Nylon Celcon Poly	KYNAR
0-4B	.16	1.02
0-5B	.18	1.03
0-6B	.19	1.15
0-8B	.26	1.28
0-12B	.29	1.41

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P = POLYPROPYLENE
K = KYNAR (Polyvinylidene Fluoride)

Sizes indicated are based on Celcon material (Acetal).

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In-House Tooling and Manufacturing Ensure Quality.



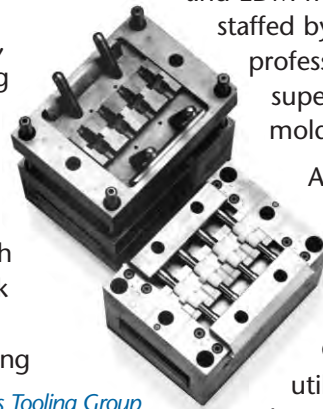
A full complement of CNC and EDM machines ensure accuracy and quality during the mold manufacturing process.

JACO is the most unique fittings company in the industry because it engineers and designs its own fittings, constructs the tooling, and then molds the fittings — all in-house.

JACO's many years as a custom injection molder, designing and producing a wide range of precision, close tolerance parts, has provided the company with the expertise to develop high quality fittings and check valves. By having total control of all manufacturing aspects from design through production, JACO can also control the quality.

JACO's Engineering Group prepares fittings concepts into detailed engineering drawings. In JACO's Tooling Group, tooling experts use sophisticated

equipment to design and craft the most complex of molds. JACO has built many varieties of fitting molds and has gained expertise in the development of threaded parts. A full complement of CNC and EDM machines, staffed by a team of professionals, deliver superior quality molds.



After tooling, the work transfers to JACO's Molding Group, which utilizes more than 75 injection molding machines.

Each day, thousands of fittings are molded to close tolerances with unfailing repeatability.

In order to consistently meet all customer requirements and continually increase customer satisfaction, JACO is commit-

ted to the continuous improvement of our products, our services, and our Quality Management System. This total commitment to Quality has enabled JACO to build and maintain a reputation of absolute trustworthiness. We are committed to providing the people and resources necessary to ensure the highest

quality parts. This goal is achievable with the assistance of JACO's highly trained Quality Assurance Team which accurately measures parts using precision gauges and instrumentation. With the company's various capabilities, it can continuously insure the quality and capability of JACO fittings.



JACO's Molding Group and Quality Assurance Group are dedicated to producing molded compression fittings with excellent repeatability and superior quality.

JACO is a Full Service Supplier of Injection Molded Plastics.

Custom Mold Capabilities

- Injection Molding
- Insert Molding
- Ten Ounce Shots
- Tight Tolerances
- ISO/TS 16949:2002
- ISO 9001:2000
- Engineering Support
- Tooling Design
- Tool Building
- SPC/Testing in House
- Part Design Support

JACO Manufacturing Company has been built on a reputation of customer service, practical applications experience and imaginative engineering. We manufacture high quality JACO compression tube fittings and a line of fittings for potable water systems.

JACO is also a specialist in the design and manufacture of close tolerance plastic parts. We consistently provide custom molded plastics into a variety of applications and industries. We are committed to meet and exceed our customer requirements for high quality, competitive parts and tooling.

To ensure top performance from all our products, we constantly provide a number of testing checks and quality control inspections. JACO's unique in-house capabilities are your assurance of quality parts, timely service and competitive pricing.

Contact JACO for more information on our wide range of products and services for the plastics industry.

Custom-Made Precision Plastic Parts



JACO specializes in small, close-tolerance plastic parts. We custom mold and insert mold parts up to 10 oz with unmatched repeatability, and offer a wide range of materials including high performance resins. JACO's in-house mold design, tooling and production ensure high quality.

JACO Custom Mold Inquiries

For inquiries and quotes on JACO custom molded products, please contact us:

440-234-4000 Phone

800-229-JACO Toll-Free

440-234-0610 Custom Mold Fax

www.jacomfg.com

Website

440-234-4000 Phone
800-229-JACO Toll-Free
440-234-7007 Fittings Fax
www.jacomfg.com

JACO

*Specializing in the manufacture
of small, close tolerance plastic parts*

JACO MANUFACTURING COMPANY
468 Geiger Street, P.O. Box 619
Berea, Ohio 44017 U.S.A.

440/234-4000
440/234-7007 FITTINGS FAX
Call Toll Free 1-800-229-JACO

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www.jacomfg.com

