

# Safety Instructions

## INSTALLATION

The PT line of quick disconnect couplings comes with a wide range of fittings including threaded, hose connection, and flanged end. These couplings have been engineered to meet specific requirements with large safety margins.

**IT IS THE RESPONSIBILITY OF THE END USER TO COMMUNICATE TO THE DISTRIBUTOR, THE APPLICATION AND OPERATING CONDITIONS THE COUPLING WILL BE SUBJECTED TO. IT IS UP TO THE DISTRIBUTOR TO SUPPLY THE RIGHT COUPLING FOR THE APPLICATION. PT COUPLING CO. IS AVAILABLE TO HELP YOU WITH A PROPER COUPLING RECOMMENDATION.**

For the type of application required, care must be taken to insure proper connection and a positive seal. Improperly fitted or applied connections can result in serious accident and/or downtime. Under no circumstances shall the recommended pressure rating of the couplings be exceeded.

## OPERATION

PT couplings provide for quick and frequent connections by means of the camming action on the groove surface of the male adapter. The male adapter is simply inserted into the female coupler until contact is made with the gasket. Both cam arms on the coupler are then closed simultaneously to produce a uniform gasket compression between the seal surfaces.

The compression on the gasket produces a seal when torque is applied to the cam arms. A positive seal requires that the surfaces on the gasket seat, the adapter face, and the gasket are smooth and uncontaminated. Cam arms must be in the full closed position for proper locking of coupling.

Gasket deterioration and excessive wear on cam, groove, and seal surfaces can reduce the performance of the coupler. Periodic inspection and servicing will ensure an efficient and safe performance.

## MAINTENANCE

Couplings should be well maintained and inspected, particularly when the conditions of service include high working pressure and/or the transfer or storage of hazardous materials. Periodic inspection and testing will detect signs indicating deterioration, damage, or loss of performance before failure.

**Gaskets:** Use only gaskets approved by PT Coupling Company. The recommended seal material for a particular application has its limitations. Initial installation of a seal material should be followed by frequent inspections. This will help establish the routine inspection and service cycle.

Replacement is required when gasket becomes hard, brittle, or otherwise loses the characteristics required to perform in the intended manner.

**Couplers:** Periodically check seal surfaces on both coupler and adapter for signs of wear or corrosion. The adapter should be checked for excessive wear on the groove surface where contact is made with cam arms.

Cam arm and pin should also be periodically inspected for excessive wear. Worn or otherwise damaged cam arms and pins can prevent the coupler from operating in the intended manner.

To replace worn cam arm and pin, remove cam pin with hammer and punch. Install properly selected new cam arm and pin making sure the cam arm is positioned in the proper direction. The cam arm handle should always be pointed away from the female end of the cam and groove connection when the arm is in the closed position. Safety goggles should be worn during this procedure.



# WARNING



**IMPROPER USE, APPLICATION OR SELECTION OF THE APPROPRIATE PRODUCTS AS IS DESCRIBED HEREIN CAN RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR EVEN DEATH.**

# Recommended Materials

All recommendations are based on media temperature of 70° F. Since the resistance of metals, plastics, and elastomers can be affected by concentration, temperature, presence of other chemicals and other factors, this information should be considered as a general guide. Ultimately, the customer must determine the suitability of the material to be used.

## LEGEND

| Body Material                                                                     |                 | Gasket Material                                                                   |                   |
|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|-------------------|
| <b>A</b>                                                                          | Aluminum        | BN                                                                                | Buna N (Standard) |
| <b>B</b>                                                                          | Brass           | BF                                                                                | Buna N (Fuel)     |
| <b>C</b>                                                                          | Ductile Iron    | NE                                                                                | Neoprene          |
| <b>E</b>                                                                          | Stainless Steel | TF                                                                                | Teflon®           |
| <b>S</b>                                                                          | Carbon Steel    | VT                                                                                | Viton®            |
| <b>P</b>                                                                          | Polypropylene   | EP                                                                                | EPDM              |
| <b>N</b>                                                                          | Nylon           | SC                                                                                | Silicone          |
|  | Consult PT      |  | Consult PT        |

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| Media                       | Body Material | Gasket Material |
|-----------------------------|---------------|-----------------|
| Acetic Acid                 | AEP           | EP              |
| Acetic Anhydride            | AEP           | NE              |
| Acetone                     | ACESPN        | EP              |
| Acetylene-dry               | AEC           | NE              |
| Agricultural Lime Solutions | CESPN         | BN              |
| Air                         | ABCEN         | BN              |
| Alcohol-Amyl                | BCESPN        | BN              |
| Alcohol-Butyl               | ABCEPN        | BN              |
| Alcohol-Thyl                | BCESPN        | VT              |
| Alcohol-Isopropyl           | ABCESPN       | BF              |
| Alcohol-Methyl              | BCESPN        | BF              |
| Alum                        | E             | BN              |
| Aluminum Chloride           | P             | BN              |
| Aluminum Floride, 20%       | ABCP          | BN              |
| Aluminum Nitrate            | EP            | BN              |
| Aluminum Potassium Sulfate  | AEP           | BN              |
| Aluminum Sulfate            | EP            | BN              |
| Ammonia-Gas or Liquid       | ACSPN         | NE              |
| Ammonium Chloride -Dry      | CP            | BN              |

| Media                     | Body Material                                                                         | Gasket Material |
|---------------------------|---------------------------------------------------------------------------------------|-----------------|
| Ammonium Hydroxide        | ACEP                                                                                  | EP              |
| Ammonium Nitrate          | AESP                                                                                  | BN              |
| Ammonium Phosphate        | EP                                                                                    | BN              |
| Mono-Basic                | E                                                                                     | BN              |
| DI Basic or Tri-Basic     | AEP                                                                                   | BN              |
| Ammonium Sulfate          | CEP                                                                                   | BN              |
| Analine                   | ACESP                                                                                 | EP              |
| Arsenic Acid              | EP                                                                                    | BN              |
| Asphalt                   | BCES                                                                                  | VT              |
| Barium Chloride           | BECF                                                                                  | TF              |
| Barium Hydroxide          | CESP                                                                                  | BN              |
| Barium Sulfide            | ESP                                                                                   | BN              |
| Basic Slag                | P                                                                                     | BN              |
| Beer                      | ABEN                                                                                  | NE              |
| Benzene/Benzol            | ABCESN                                                                                | VT              |
| Benzine                   | ABCESN                                                                                | BN              |
| Bio-Diesel                |  | VT              |
| Black Liquor (Paper Ind.) | P                                                                                     | VT              |
| Bleach (12.5 Chloride)    | P                                                                                     | VT              |

| Media                     | Body Material | Gasket Material |
|---------------------------|---------------|-----------------|
| Borax                     | CESP          | SC              |
| Boric Acid                | AEP           | BN              |
| Brine                     | EPN           | BN              |
| Bromic Acid               | P             | VT              |
| Burnt Limt (CA O)         | ABCESPN       | BN              |
| Butadiene                 | ABCES         | SC              |
| Butane                    | ABCEN         | BN              |
| Butenes                   | ABCES         | VT              |
| Butyl Acetate-Dry         | ABCES         | EP              |
| Butyle Stearate           | ABE           | BN              |
| Butylene                  | ABCE          | BN              |
| Cadium Cyanide            | P             | BN              |
| Calcium Acetate           | BEP           | EP              |
| Calcium Bisulfite         | EP            | BN              |
| Calcium Chloride          | P             | BN              |
| Calcium Hydroxide         | BCESP         | BN              |
| Calcium Hypochlorite      | P             | ☎               |
| Calcium Nitrate, 40%      | ACEP          | BN              |
| Carbolic Acid (Phenol)    | E             | VT              |
| Carbon Dioxide -Dry       | ABCEN         | BN              |
| Carbon Disulfide          | ABCES         | VT              |
| Carbon Tetrachloride      | CEN           | VT              |
| Carbonated Beverages      | AEN           | NE              |
| Carbonic Acid             | AEN           | BN              |
| Castor Oil                | EPN           | BN              |
| Caustic Potash (KOH)      | CPN           | EP              |
| Caustic Soda (NA OH)      | CPN           | EP              |
| "Cellosolves"             |               |                 |
| Butyl or Ethyl            | ABCES         | TF              |
| Methyl                    | ABCES         | BN              |
| Chlorobromomethane        | BE            | VT              |
| Chloroform-Dry            | ABN           | NE              |
| "Chlorex"                 | BN            | NE              |
| Chromic Acid, 50%         | CEP           | ☎               |
| Citric Acid               | EPN           | NE              |
| Cobaltized Super Compound | P             | BN              |
| Copper Chloride-Dry       | CSP           | BN              |
| Copper Sulfate            | EP            | BN              |
| Copperized Super Compound | P             | BN              |
| Corn Oil                  | EPN           | BN              |
| Cottonseed Oil            | AEPN          | BN              |
| Cresote                   | ABCES         | VT              |
| Cresylic Acid             | ABCES         | VT              |

| Media                      | Body Material | GAasket Material |
|----------------------------|---------------|------------------|
| Cyclohexane                | ABCESN        | VT               |
| Detergents                 | EPN           | BN               |
| Developer Solution         | P             | BN               |
| Dextrose                   | AEN           | BN               |
| Diesel Fuels               | ABCESPN       | BF               |
| Deithylene Glycol          | ABCESP        | BF               |
| Deithyl Sebacate           | ☎             | ☎                |
| Disodium Phosphate         | P             | BN               |
| Dowtherm                   | S             | VT               |
| Ethanolamine               | ACES          | NE               |
| Ether                      | ABEN          | BN               |
| Ethyl Acetate              | CESPN         | EP               |
| Ethyl Chloride-Dry         | ABE           | BN               |
| Ethylene                   | BCE           | BF               |
| Ethylene Dichloride-Dry    | ABCES         | VT               |
| Ethylene Glycol            | ABCESPN       | BF               |
| Ethylene Oxide             | E             | TF               |
| Fatty Acids                | EPN           | BN               |
| Ferric Chloride            | BP            | BN               |
| Ferric Hydroxide           | P             | BN               |
| Ferric Nitrate             | EP            | BN               |
| Ferric Sulfate             | EP            | BN               |
| Flourboric Acid            | EP            | ☎                |
| Formaldehyde, 40%          | AEP           | NE               |
| Formalin                   | AEP           | NE               |
| Formic Acid                | AEP           | NE               |
| Freon                      | ACESPN        | NE               |
| Fruit Juices               |               |                  |
| Grapefruit                 | EN            | NE               |
| Lemon                      | EN            | NE               |
| Pineapple                  | EN            | NE               |
| Furfural                   | ABCE          | NE               |
| Gas -Coke Oven             | ☎             | ☎                |
| Gasoline-Refined           | ABCESN        | BF               |
| Gasoline-Sour              | AEN           | BF               |
| Gelatin                    | AEPN          | NE               |
| Glucose                    | AEPN          | NE               |
| Glue                       | ABCESPN       | BN               |
| Glycerin                   | ABCESPN       | BF               |
| Glycols                    | PN            | BF               |
| Green Liquors (Paper Ind.) | P             | VT               |
| Hexane                     | ABCESN        | VT               |
| Hydrobromic Acid           | P             | VT               |



| Media                    | Body Material | Gasket Material |
|--------------------------|---------------|-----------------|
| Hydrochloric Acid        | P             | VT              |
| Hydrocyanic Acid, 50%    | AEP           | EP              |
| Hydrofluoric Acid, 48%   | E             | ☎               |
| Hydrogen Gas             | ABCEN         | BN              |
| Hydrogen Peroxide        | EP            | VT              |
| Hydrogen Sulfate         | E             | ☎               |
| "Hypo"                   | E             | BN              |
| Hypochlorous Acid, 20%   | ☎             | VT              |
| Isobutyl Acetate         | ABESPN        | EP              |
| Isopropyl Acetate        | CEP           | EP              |
| Jet Fuel                 | ABCESN        | VT              |
| Kerosene                 | ABCESN        | BN              |
| Lacquers                 | ABEN          | BN              |
| Lactic Acid, 20%         | EPN           | NE              |
| Lactic Acid, 50%         | EP            | NE              |
| Lard                     | EPN           | NE              |
| Lead Chloride Sulfate    | P             | BN              |
| Lime Slurry              | EPN           | BN              |
| Lime Sulfur              | CESPN         | BN              |
| Linoleic Acid            | EP            | SC              |
| Linseed Oil              | EPN           | BN              |
| L.P.G.                   | ABCEN         | BF              |
| Magnesium Carbonate      | BCESPN        | BN              |
| Magnesium Chloride       | EP            | BN              |
| Magnesium Hydroxide      | BCESPN        | EP              |
| Magnesium Nitrate        | AEP           | BN              |
| Magnesium Sulfate        | AEP           | NBN             |
| Meat and Bone Meal       | APN           | BN              |
| Mercuric Chloride        | P             | BN              |
| Mercury                  | CESPN         | BN              |
| Methane                  | ACEN          | BF              |
| Methanol                 | ABCESPN       | BF              |
| Methyl Amyl Acetate      | P             | EP              |
| Methylene Chloride       | EN            | T               |
| Methyl Benzene           | ABCESN        | VT              |
| Methylenthyl Keton       | ABCESPN       | EP              |
| Milk                     | EN            | NE              |
| Mineral Oil              | ABCESPN       | BN              |
| Molasses                 | BCESPN        | NE              |
| Muriate of Potash (K CL) | CPN           | BN              |
| Muriatic Acid (H CL)     | ☎             | VT              |
| Naptha                   | ABESN         | VT              |
| Napthalene               | ABCES         | VT              |

| Media                   | Boday Material | Gasket Material |
|-------------------------|----------------|-----------------|
| Napthenic Acid          | BCES           | BN              |
| Natural Gas             | ACEN           | BF              |
| Nickel Chloride         | EP             | BN              |
| Nickel Sulfate          | BEP            | BN              |
| Nitric Acid             | EP             | VT              |
| Nitrobenzene            | ACESN          | EP              |
| Nitro Lime              | P              | BN              |
| Octane                  | ABCESN         | VT              |
| Oil-Core                | BCESN          | BN              |
| Oil-Fuel                | ABCESN         | BF              |
| Oil-Hydraulic           | ABCESPN        | BN              |
| Oil-Petroleum           | ☎              | ☎               |
| Crude                   | CESN           | BF              |
| Refined                 | ABCESN         | BN              |
| Oil-Transmission        | BCESPN         | VT              |
| Oil-Vegetable           | EPN            | NE              |
| Oleic Acid              | CESPN          | BN              |
| Oleum                   | CS             | VT              |
| Oxalic Acid             | APN            | BN              |
| Oxygen                  | ABCEN          | BN              |
| Palmitic Acid           | EPN            | BN              |
| Paraffin                | ABCESPN        | BN              |
| Pentachlorophenol-Dru   | S              | TF              |
| Perchloroethylene       | CEN            | VT              |
| Phosphoric Acid         | EP             | ☎               |
| Photographic Solutions  | PN             | VT              |
| Phthalic Anhydride      | ABCESPN        | NE              |
| Picric Acid             |                |                 |
| Molten E                | E              | ☎               |
| Aqueous Solution        | EP             | ☎               |
| Plating Solutions       | P              | EP              |
| Potassium Acetate       | BCE            | EP              |
| Potassium Chloride      | PN             | BN              |
| Potassium Cyanide       | ESN            | BN              |
| Potassium Dichromate    | ABCESN         | BN              |
| Potassium Flouride      | ABCESPN        | ☎               |
| Potassium Hydroxide,30% | EPN            | EP              |
| Potassium Nitrate       | ABCEPN         | BN              |
| Potassium Sulfate       | ABEPN          | BN              |
| Propicnic Acid          | EPN            | NE              |
| Propylene Glycol        | ABCPN          | BN              |
| Propylene Oxide         | ESN            | EP              |
| Rosi                    | AEPN           | BN              |

| Media                      | Body Material | Gasket Material |
|----------------------------|---------------|-----------------|
| Salt Water                 | BEPN          | BN              |
| Shellac                    | AEPN          | BN              |
| Silicone Fluid             | EN            | EP              |
| Silicone Oil               | EPN           | NE              |
| Silver Nitrate             | PN            | EP              |
| Soap Solutions             | EPN           | BN              |
| Soda Ash                   | CESPN         | BN              |
| Sodium Bicarbonate         | BEPN          | BN              |
| Sodium Bisulfate           | EP            | BN              |
| Sodium Borate              | ABEPN         | BN              |
| Sodium Carbonate           | CESPN         | BN              |
| Sodium Chloride            | BCESPN        | BN              |
| Sodium Cyanide, 10%        | CESPN         | BN              |
| Sodium Dichromate, 10%     | AESP          | ☎               |
| Sodium Hydroxide, 40%      | CEPN          | NE              |
| Sodium Hypochlorite, 20%   | P             | ☎               |
| Sodium Metaphosphate       | BEPN          | BN              |
| Sodium Nitrate             | ACESPN        | EP              |
| Sodium Peroxide            | CESP          | EP              |
| Sodium Phosphate           |               |                 |
| Mon-Basic                  | BCESP         | BN              |
| Di-Basic                   | BCESP         | BN              |
| Tri-Basic                  | BCESP         | BN              |
| Sodium Silicate            | BCEP          | BN              |
| Sodium Sulfate             | BEPN          | BN              |
| Sodium Sulfide             | ESP           | BN              |
| Sodium Thiosulfate         | SP            | BN              |
| Soybean Oil                | SPN           | BN              |
| Stannic Chloride           | P             | ☎               |
| Stannous Chloride, 15%-Dry | CE            | ☎               |
| Steam 400°F                | CE            | VT              |
| Stearic Acid               | EP            | BN              |
| Stoddard Solvent           | ABCES         | BF              |

| Media                      | Body Material | Gasket Material |
|----------------------------|---------------|-----------------|
| Styrene                    | VT            | VT              |
| Sugar Liquors              |               |                 |
| Cane                       | ABCESPN       | NE              |
| Beet                       | ACESPN        | NE              |
| Sulfate Liquors            | EP            | BN              |
| Sulphite Liquors           | EP            | VT              |
| Sulfuric Acid              | ☎             | ☎               |
| Sulfurous Acid             | EP            | HP              |
| Superphosphate             | P             | BN              |
| Tannic Acid, 10%           | EP            | ☎               |
| Tar-Wood                   | ABCESP        | BN              |
| Tartaric Acid              | EPN           | BN              |
| Titanium Tetrachloride-Dry | ESPN          | VT              |
| Toluene/Toluol             | ABCESN        | VT              |
| Tetrachloroethylene        | EN            | VT              |
| Trichloroethylene-Dry      | BCESN         | VT              |
| Triethanolamine            | ACEP          | EP              |
| Trisodium Phosphate        | ESPN          | BN              |
| Urea                       | AEP           | BN              |
| Urine                      | PN            | NE              |
| Varnish                    | AEN           | VT              |
| Vinegar                    | EPN           | NE              |
| Water                      |               |                 |
| Acid Mine                  | EN            | BN              |
| Deionized                  | PN            | NE              |
| Demineralized              | PN            | NE              |
| Distilled                  | AEPN          | NE              |
| Fresh                      | ABEPN         | BN              |
| Salt                       | BEPN          | BN              |
| White Liquor (Paper Ind.)  | E             | BN              |
| Wine                       | EN            | NE              |
| Xylene/Xylol               | ABESN         | VT              |
| Zinc Chloride              | P             | BN              |
| Zinc Nitrate, Sulfate      | AEPN          | BN              |