

Q U I C K A C T I O N C O U P L I N G S



GENERAL PURPOSE HYDRAULIC QUICK COUPLINGS

INDUSTRIAL ■ AGRICULTURAL/MOBILE ■ IN PLANT

SafeWay's field-proven line of hydraulic and fluid transfer quick couplings fit a broad spectrum of applications in every industry where ease of connection/disconnection is required. SafeWay quick couplings have a solid reputation for ease of use without leakage, and with a minimum restriction of flow during system operation. Since our founding in 1969, all SafeWay products are engineered, fabricated and assembled—with pride—in the USA.

Quick Action Couplings designed for fluid transfer are generally classified as industrial or agricultural, based on the primary market for the described interchange. Although some products listed herein are referred to as industrial in nature, they find their way into a wide variety of uses including agricultural equipment. Conversely, many agricultural products are used in construction/mobile applications. Generally, industrial interchange quick couplings incorporate elastomer seal poppet checks as standard and offer higher flows and higher rated working pressures than their agricultural interchange cousins.

Due to the wide range of use for these products, numerous materials and options are available. Obtaining the proper product for your application should be your prime concern. Please review our current catalog at our website, or contact the factory for additional information regarding your particular requirement.

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FAILURE, IMPROPER USE OR IMPROPER SELECTION OF THE SYSTEMS AND/OR COMPONENTS DESCRIBED HEREIN MAY CAUSE DEATH, PERSONAL INJURY AND/OR PROPERTY DAMAGE.

This document, as well as all other catalogs, price lists and information provided by SafeWay Hydraulics, Inc., its subsidiaries or authorized distributors is intended to provide product information and/or system options for further consideration by users having substantial technical expertise. It is imperative that all aspects of any intended use be analyzed and all pertinent information reviewed concerning the component or system in a current product catalog. Due to the variety of operating conditions and applications for these components and systems, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and systems and ensuring that all safety, warning and performance requirements of the application or use are met.

The components described herein, including without limitation, all component features, specifications, designs, pricing and availability are subject to change at any time at the sole discretion of SafeWay Hydraulics, Inc. and its subsidiaries at any time without notice.

Safety Guide — Quick Action Couplings

1. **Quick couplings can fail without warning for a variety of reasons. All equipment and systems should be of a fail-safe design to avoid endangering persons and property.**
2. **Any person responsible for selecting or using quick couplings should read and understand this safety guide and have a good understanding of hydraulic system design and maintenance.**
3. **SafeWay, its representatives and distributors do not represent or warrant that any quick coupling is suitable for any specific use. The user, through its own testing and evaluation, is solely responsible for final selection of the products and systems and ensuring that all safety, warning and performance requirement of the application or use are met.**

Coupler Installation

Quick couplings should be located so as not to expose the operator to moving parts, hot parts, the potential of falling, slipping, or other hazardous conditions. Precautions should be taken to not over tighten mating threaded parts during installation.

Locking Mechanism

Ball locking quick couplings can unintentionally disconnect if they are dragged over obstructions while on the end of a hose, or if the sleeve is bumped or moved enough to cause disconnect. Sleeves designed with flanges to provide better gripping for gloved hands are especially susceptible to accidental disconnect and should not be used where these conditions exist. **The sleeve lock option should be considered where there is a potential for unintended uncoupling.**

Thread connection must be fully connected prior to pressurization. Pressure ratings must apply to full connected or fully disconnected quick couplings. **If using a connect-under-pressure style threaded connection quick coupling, adhere to the specified maximum pressure rating for connection-under-pressure** (usually less than 10% of the maximum operating pressure).

Coupler Size

Transmission of power by means of pressurized fluid varies with the system pressure and flow rate. The body size of the coupler must be adequate to keep pressure loss to a minimum to avoid damage due to heat generation or excessive fluid velocity.

Mechanical Loads

Excessive axial and side forces or vibration can reduce coupler life or cause failure.

Pressure

When selecting your quick coupling, make sure its maximum operating pressure is equal to, or greater than, the maximum possible system pressure. **Do not exceed the limits of the coupler.** Pressure impulse can shorten the life of a coupler.

Hose Whip

A short length of hose between the tool and the coupler half should be used instead of a rigid mount. This reduces the potential for coupler damage and provides some isolation from mechanical vibration which could cause accidental uncoupling. Never try to connect or disconnect the coupler when there is pressure in the system unless you are using a quick coupling designed for that purpose.

Environment

Environmental conditions including, but not limited to, moisture, water, chemicals, ozone, ultraviolet radiation and air pollutants can cause degradation of coupling components and premature quick coupling failure. Choose the proper body material for use in the environment in which the system is placed.

Vacuum

Not all quick couplings are suitable or recommended for vacuum service. Quick couplings used in vacuum applications must be selected to ensure that the quick coupling will withstand the vacuum and pressure of the system.

Fluid and Temperature

Quick coupling body and seal materials must be compatible with the media and ambient temperature, both steady and transient. **Do not exceed the limits of the coupler.**

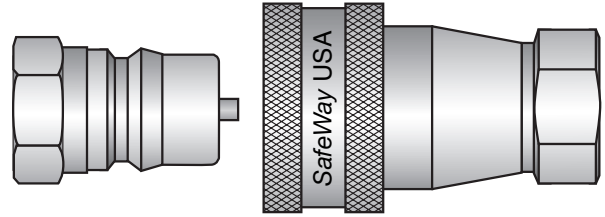
Fluid Leaks

Do not go near fluid leaks. High pressure leaks of fluid such as oil easily puncture skin and can cause serious injury, gangrene or death. Relieve pressure before loosening fittings. Do not use fingers or skin to check for leaks. If injured, seek emergency medical help. Immediate surgery is required to remove oil.

INDUSTRIAL INTERCHANGE OVERVIEW

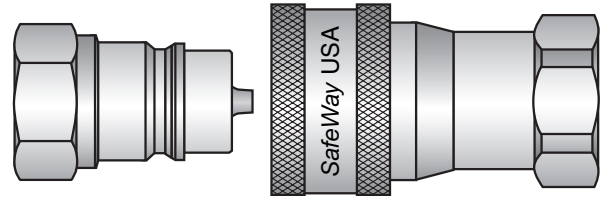
INTERNATIONAL ISO 7241-1 SERIES B INDUSTRIAL INTERCHANGE

SafeWay's S10 Series quick couplings meet International Standard ISO 7241-1 Series B requirements with improved performance over competitive interchanges (Aeroquip FD45, Hansen HK, Parker 60, etc.). The S10 Series is available in 1/8" body size through 1" body size in plated steel, brass and 303 stainless steel, with operating pressures from 1,000 to 5,000 psi. Buna-N (Nitrile) seals are standard, with virtually all other seal materials available. Other options include, but are not limited to, sleeve-lock, one-way shut off, and straight-thru design (no valving).



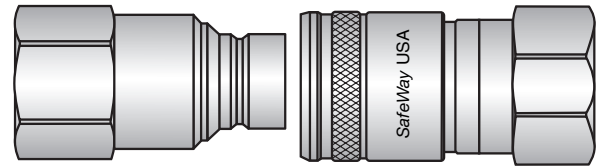
INTERNATIONAL ISO 7241-1 SERIES A COMPACT INDUSTRIAL INTERCHANGE

SafeWay's S56 Series quick couplings meet International Standard ISO 7241-1 Series A requirements with improved performance over competitive interchanges (Aeroquip 5600, Parker 6600, Faster NV, etc.). Available in 1/4" body size through 1" body size in plated steel, with operating pressures from 4,000 to 5,000 psi. The S56's smaller size and lighter weight allow system design flexibility. Rugged construction and high flow make this series ideal for such applications as plant maintenance equipment, skid-steer loaders, snow plows, mining, dump trucks, gooseneck trailers, chemical transfer lines, and many more.



INTERNATIONAL ISO 16028 FLUSH FACE, NON SPILL

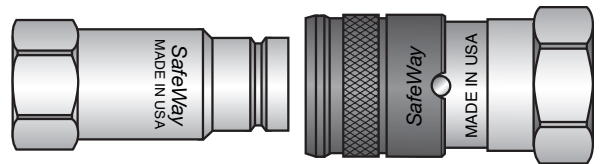
SafeWay's FFE49 Series shares much with our FF49 Series while meeting the dimensional requirements of the International Standard ISO 16028. Available in ISO 1/4" body size through ISO 1" body size in a wide variety of thread sizes and styles, with operating pressures from 3,000 to 5,000 psi. This steel, high flow, general purpose quick coupling is ideally suited for use wherever spillage can constitute a safety or environmental hazard. Choose the FFE49 Series when the extra heavy-duty specifications of the FF49 Series are not required.



HIGH PRESSURE, FLUSH FACE NO SPILLAGE & HIGH FLOW

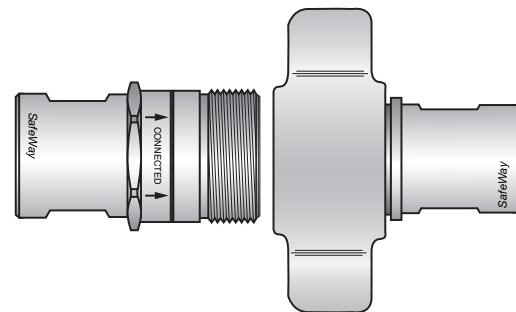
SafeWay's FF49 Series quick couplings provide rugged, flush-face valving for non-spill dry breaks, and allow one-hand push-to-connect with safety sleeve-lock standard. The 3/8" size meets HTMA dimensional standards while providing a significantly higher pressure rating than other brands (10,000 psi max. operating). The ISO 1/2" body size is rated at 6,000 psi max. operating pressure. Ideally suited for use on hydraulic hand tools, overhead bucket hoists, skid-steer loaders, and wherever spillage can constitute a safety or environmental hazard.

SafeWay's SF49 Series quick couplings are machined from 303 stainless steel, in 3/8" body size, rated at 3,000 psi max. operating pressure.



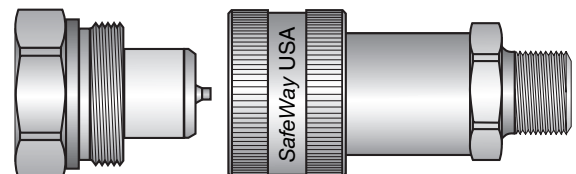
MINIMUM SPILL, HIGH FLOW, HEAVY-DUTY QUICK COUPLING

SafeWay's S51 Series is a general purpose, thread-to-connect, fluid transfer quick coupling designed for use with most industrial fluids. The body and tip halves are machined from brass or optional electroless nickel plated steel (-STL) in 3/4" body size through 1-1/4" body size. The body half is available with either a ductile cast iron wing nut or steel hex nut. It can be used in a wide range of applications where a heavy-duty connection is required, allowing minimal spillage and connection under pressure. Applications include "wet-line kits" used widely on dump trailers, mobile drilling rigs, mining equipment, and salt spreaders. The S51 Series is interchangeable half-for-half with the Aeroquip FD51 (5100) Series, Parker 6100 Series, and Snap-tite 78 Series.



HIGH PRESSURE, THREAD TOGETHER FOR HYDRAULIC JACKS AND RAMS

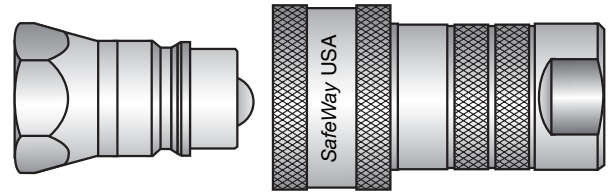
SafeWay's S30 Series quick couplings comply to the accepted standard for interchangeability within the hydraulic jack industry. Rated at 10,000 psi max. operating, the S30 Series incorporates unique soft seat poppet style valving that eliminates low pressure leakage disconnected while providing more than a 50% increase in flow over competitive interchanges (Parker/Pioneer 3000, Enerpac C-604, etc.). Higher flow allows a quicker ram return. Interchanges with other brands, both ball and poppet valve style! Available in 1/4" and 3/8" size.



AGRICULTURAL INTERCHANGE OVERVIEW

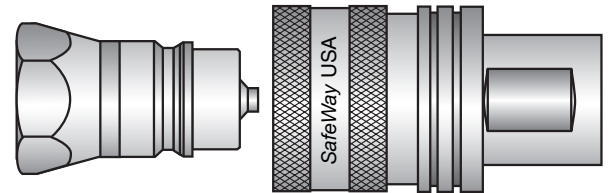
RELIABLE, ECONOMICAL, GENERAL PURPOSE COUPLINGS

SafeWay's S20 Series quick couplings are a double shut-off design available with either a rugged ball valve or leak-free, high flow poppet valve. The reliable and durable locking ball mechanism provides smooth operation time-after-time. The one-way sleeve design allows implement break-away when the coupling is clamp mounted. The S20 Series is interchangeable half-for-half with the Parker/Pioneer 4000 Series. The S20 Series is available in 1/4" through 1" body size in a variety of thread sizes and styles. The 1/2" body size meets the requirements of International Agricultural Standard ISO 5675.



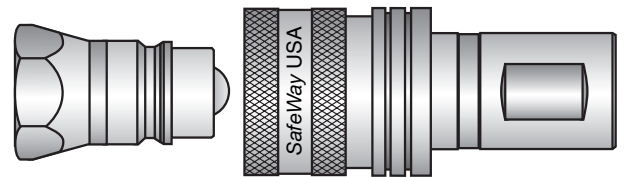
ONE HAND OPERATION, GENERAL PURPOSE COUPLINGS

SafeWay's S40 Series has the same specifications as the S20 Series, with the addition of our two-way (double acting) sleeve feature. Introduced by SafeWay in 1969, the two-way sleeve allows one-hand connect or disconnect when the coupling is clamp or bulkhead mounted. The S40 Series is interchangeable half-for-half with the Parker/Pioneer 4200 Series. Available in 1/4" through 1/2" body size in a variety of thread sizes and styles. The 1/2" body size meets the requirements of International Agricultural Standard ISO 5675.



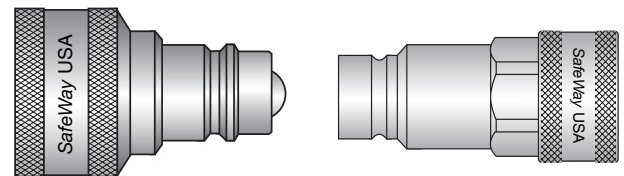
FLOWMASTER® CONNECT-UNDER-PRESSURE COUPLINGS

SafeWay's S70 Series offers unique internal valving combined with the two-way sleeve, allowing easy one-hand connection to a clamp or bulkhead mounted coupler while the male tip and/or female body half are under pressure. After hook-up, valving within the coupling opens when the hydraulic system is operated. May be used with either an open center or a closed center hydraulic system that has a control valve. The S70 Series is interchangeable, half-for-half with the Parker/Pioneer 8200 Series. Available in 1/2" body size in a variety of thread sizes and styles. The 1/2" body size meets the dimensional requirements of International Agricultural Standard ISO 5675.



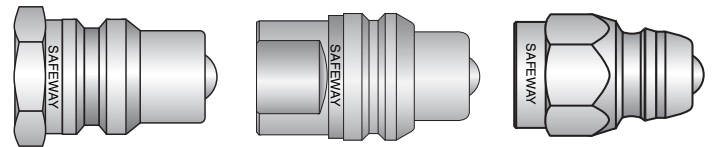
ORIGINAL SAFEWAY COUPLER ADAPTERS

Another SafeWay first! Coupler adapters eliminate the inconvenience and frustration of connecting mismatched coupler halves. For example, the S25-4-3 (pictured) allows connection of an old style John Deere male tip to a standard SafeWay or Pioneer female coupler. Our NEW FAE Series coupler adapters (FAE56-49-4 pictured) allow interconnection between 1/2" agricultural ISO 5675 equipment and 1/2" international ISO 16028 Flush Face couplers found on skid-steer loaders.



OEM REPLACEMENT MALE TIPS

Original equipment interchangeable male tips are available for John Deere, Ford, JI Case, International Harvester, and all manufacturers conforming to International Agricultural Standard ISO 5675.



PNEUMATIC INTERCHANGE

SafeWay's S80 Series (Push-to-Connect) pneumatic quick couplings are available in 1/4" body size. Interchanges with ARO 210 and others conforming to this interchange. Available with male or female thread.

SafeWay's S82 Series (Manual Connect) pneumatic quick couplings are available in 1/4" and 3/8" body size. Interchanges with the Parker/Pioneer 20 Series and others conforming to this interchange. Available with male or female thread.

