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Summit Hydraulics FF12-AG12-SET

Summit Hydraulics Hydraulic Quick Coupler Adapter Set

ISO 16028 FLAT FACE TO AG ISO 5675 PIONEER STYLE

Introduction

This manual provides essential information for the safe and effective use of your Summit Hydraulics Flat Face ISO 16028 to Ag ISO 5675 Pioneer Style Hydraulic Quick Coupler Adapter Set. This adapter set is designed to facilitate the connection of agricultural implements with Pioneer style couplers to skid steer equipment utilizing ISO 16028 flat face couplers. Please read this manual thoroughly before installation and operation.

Safety Information

Always prioritize safety when working with hydraulic systems. Failure to follow these guidelines can result in serious injury or equipment damage.

- **Depressurize Hydraulic Systems:** Before connecting or disconnecting couplers, ensure all hydraulic lines are depressurized. High-pressure fluid can cause severe injury.
- **Wear Personal Protective Equipment (PPE):** Always wear appropriate safety glasses, gloves, and other protective gear.
- **Inspect Components:** Before each use, inspect couplers for damage, wear, or leaks. Do not use damaged components.
- **Cleanliness:** Keep couplers and hydraulic lines clean to prevent contamination of the hydraulic system.
- **Proper Connection:** Ensure couplers are fully engaged and locked to prevent accidental disconnection.
- **Fluid Compatibility:** Use only hydraulic fluids compatible with your equipment and the coupler materials.

Product Overview

The Summit Hydraulics Quick Coupler Adapter Set consists of two primary components:

- **ISO 16028 Flat Face Coupler (Female):** Designed to connect to the male flat face couplers typically found on modern skid steers and other equipment.
- **Ag ISO 5675 Pioneer Style Coupler (Male):** Designed to connect to the female Pioneer style couplers commonly

found on agricultural implements.

The set includes dust caps for both coupler types to protect against dirt and debris when not in use.



Figure 1: Summit Hydraulics Flat Face to Pioneer Style Quick Coupler Adapter Set. This image displays both the male and female couplers, each equipped with protective red dust caps, designed to prevent contamination and protect the coupler ends when not in use.



Figure 2: Side view of the adapter set. The image shows the distinct designs of the flat face coupler (left) and the Pioneer style coupler (right), highlighting their robust construction.

Setup and Installation

This adapter set allows you to connect an implement with Ag ISO 5675 Pioneer style hydraulic connections to a machine with ISO 16028 Flat Face hydraulic connections.

- 1. Identify Coupler Types:** Determine which hydraulic lines on your equipment are Flat Face (ISO 16028) and which on your implement are Pioneer Style (ISO 5675).
- 2. Clean Connections:** Thoroughly clean the mating surfaces of all couplers to prevent dirt and debris from entering the hydraulic system.
- 3. Connect Flat Face Adapter:**
 - Take the adapter with the **Flat Face (ISO 16028) end**
 - Connect the threaded end of this adapter to the corresponding hydraulic hose from your implement that would normally connect to a Flat Face coupler. Ensure a tight, leak-free connection.
- 4. Connect Pioneer Style Adapter:**
 - Take the adapter with the **Pioneer Style (ISO 5675) end**.
 - Connect the threaded end of this adapter to the corresponding hydraulic hose from your equipment that would normally connect to a Pioneer Style coupler. Ensure a tight, leak-free connection.
- 5. Verify Connections:** Double-check all threaded connections for tightness.

Once the adapters are securely attached to the hydraulic hoses, you can proceed to connect the implement to the equipment.

Operating Instructions

Connecting and disconnecting the adapter set:

- 1. Before Connecting:**
 - Ensure both the equipment and implement hydraulic systems are depressurized.
 - Clean the mating surfaces of the Flat Face and Pioneer Style couplers to prevent contamination.
 - Remove dust caps from both ends of the adapter set.
- 2. Connecting the Couplers:**
 - Align the Flat Face end of the adapter with the Flat Face coupler on the equipment. Push firmly until it clicks into place.
 - Align the Pioneer Style end of the adapter with the Pioneer Style coupler on the implement. Push firmly until the locking sleeve engages.
 - Verify that both connections are fully engaged and secure. The locking sleeve on the Pioneer style coupler helps prevent accidental disconnections.
- 3. After Connecting:**
 - Slowly re-pressurize the hydraulic system and check for any leaks at the connection points.
 - If leaks are detected, depressurize the system immediately and re-check connections or inspect for damage.
- 4. Disconnecting the Couplers:**
 - Always depressurize the hydraulic system before attempting to disconnect.
 - For the Flat Face coupler, pull back the collar and separate the connection.

- For the Pioneer Style coupler, pull back the locking sleeve and separate the connection.
- Immediately replace dust caps on both ends of the adapter set and the equipment/implement couplers to prevent contamination.

Maintenance

Regular maintenance ensures optimal performance and extends the lifespan of your hydraulic couplers.

- **Cleanliness:** Keep couplers free from dirt, dust, and debris. Use a clean cloth to wipe down surfaces before connecting.
- **Dust Caps:** Always use the provided dust caps when couplers are not in use. This is critical for preventing contamination.
- **Inspection:** Periodically inspect the couplers for signs of wear, corrosion, or damage. Pay close attention to O-rings and sealing surfaces.
- **Lubrication:** A light application of hydraulic system-compatible grease or oil on the moving parts (e.g., locking sleeve) can improve operation and prevent wear. Avoid over-lubrication which can attract dirt.
- **Storage:** Store couplers in a clean, dry environment when not in use.

Troubleshooting

Problem	Possible Cause	Solution
Difficulty connecting couplers	Residual pressure in lines Dirt/debris on mating surfaces Damaged coupler	Ensure hydraulic system is fully depressurized. Clean couplers thoroughly. Inspect for damage; replace if necessary.
Hydraulic fluid leak at connection	Coupler not fully engaged Damaged O-ring or seal Contamination	Depressurize and re-connect, ensuring full engagement. Inspect and replace O-rings/seals if damaged. Clean couplers thoroughly.
Accidental disconnection	Locking sleeve not fully engaged (Pioneer style) Excessive vibration or movement	Ensure locking sleeve is fully forward after connection. Secure hoses to minimize movement.

Specifications

The following specifications apply to the Summit Hydraulics Flat Face ISO 16028 to Ag ISO 5675 Pioneer Style Hydraulic Quick Coupler Adapter Set (Model FF12-AG12-SET):

- **Model Number:** FF12-AG12-SET (Individual coupler model: FF12)
- **Coupler Type 1:** ISO 16028 Flat Face (Female)
- **Coupler Type 2:** Ag ISO 5675 Pioneer Style (Male)
- **Body Size:** 1/2 inch
- **Thread Size:** 1/2 inch UN
- **Material:** Alloy Steel with anti-corrosion plating

- **Maximum Pressure:** 5076 PSI (350 Bar)
- **Item Weight:** Approximately 2 pounds (per set)
- **Product Dimensions:** Approximately 6 x 2 x 4 inches (overall set)

How to measure body size

Coupler fractional sizes are industry standards and are not an actual measurement of the coupler.



Ex: 1/2" body couplers do not measure 1/2".

Use a caliper to accurately measure coupler as shown.

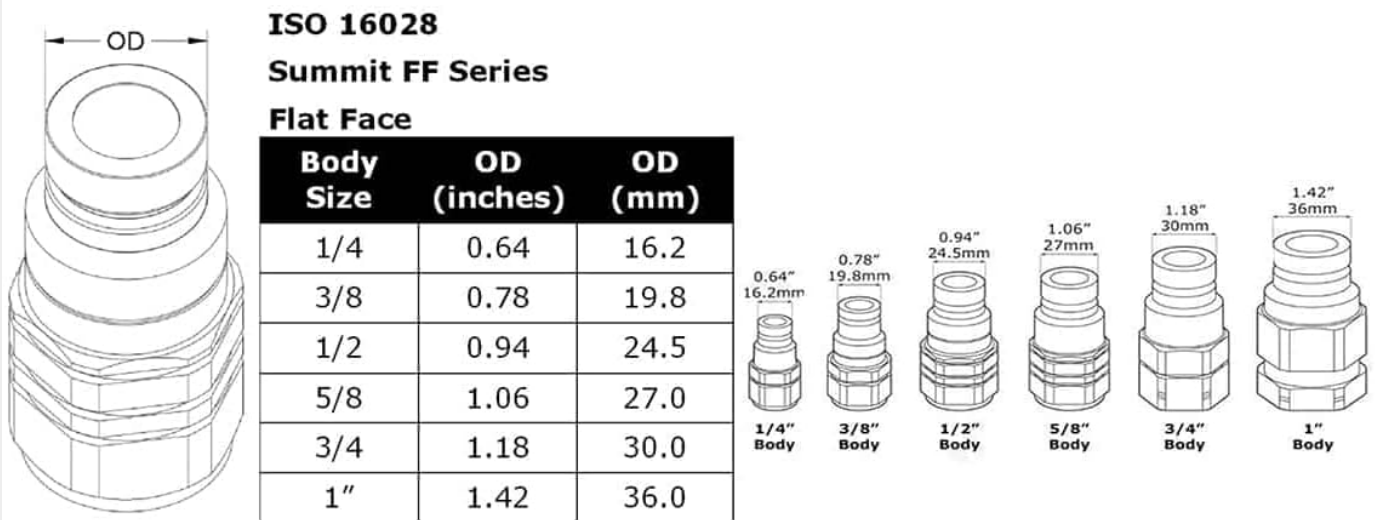


Figure 3: Guide for measuring coupler body size. This diagram illustrates how to use a caliper to accurately measure the outer diameter

(OD) of a flat face coupler, along with a table showing standard body sizes and their corresponding OD measurements for ISO 16028 couplers.

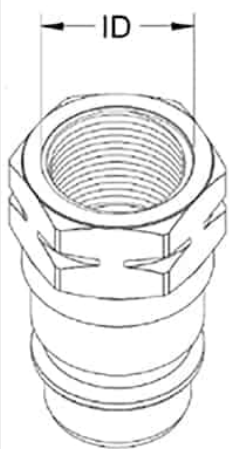
How to measure thread size

Coupler fractional sizes are industry standards and are not an actual measurement of the coupler.



Ex: 1/2" port size measures 3/4" thread ID.

Use a caliper to accurately measure coupler as shown.



NPT THREAD				SAE THREAD			
Inch Size	Dash Size	Thread Per Inch	(I.D.) - (Inches)	Inch Size	Dash Size	Thread Size	(I.D.) - (Inches)
1/4	-4	18	0.49 (1/2)	1/4	-4	7/16-20	0.39 (13/32)
3/8	-6	18	0.63 (5/8)	5/16	-5	1/2-20	0.45 (15/32)
1/2	-8	14	0.77 (25/32)	3/8	-6	9/16-18	0.51 (17/32)
3/4	-12	14	0.98 (1)	1/2	-8	3/4-16	0.69 (11/16)
1	-16	11.5	1.24 (1-1/4)	5/8	-10	7/8-14	0.81 (13/16)
1-1/4	-20	11.5	1.58 (1-19/32)	3/4	-12	1-1/16-12	0.98 (1)

Figure 4: Guide for measuring coupler thread size. This diagram demonstrates using a caliper to measure the inner diameter (ID) of a coupler's thread, accompanied by tables for NPT and SAE thread types, listing thread per inch and corresponding ID measurements.

For warranty information, technical support, or to purchase replacement parts, please contact Summit Hydraulics directly through their official website or authorized distributors. Retain your proof of purchase for warranty claims.

Manufacturer: Summit Hydraulics

UPC: 765552691310

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