

# **FFS SERIES**

# STAINLESS STEEL FLAT FACE COUPLERS MADE TO THE ISO 16028 STANDARD

AKJia's FFS Series stainless steel flat face couplers incorporate all the benefits of the carbon steel FF Series couplers, while being perfectly suited for corrosive fluids and environments. The FFS Seires dry disconnect couplings are ideal for closed system transfer and dispensing of chemicals and other fluids. The flush valves eliminate spillage and air inclusion when connecting and disconnecting to result in minimal environmental contamination.

## Series FFS //Stainless Steel

| Material                      | Stainless Steel   |
|-------------------------------|---|
| Surface Finishing             | No plating required   |
| Standard Seal Material(s)     | FKM <sup>2</sup>  |
| Working Temperature           | -20° C +200° C / -4° F +392° F  |
| Valve Design                  | Flat Face   |
| Connection                    | Push  |
| Disconnection                 | Actuate Push Sleeve   |
| <b>Connect Under Pressure</b> | not allowed   |
| Application                   | Corrosive fluids and environments, Marine, Oil and gas, Chemical, Pharmaceutical, Nuclear |
| ISO Interchange               | ISO 16028   |

<sup>&</sup>lt;sup>2</sup> Alternative seal materials are available on request.

#### **Features**

- Flush, non-spill valves enable ease of cleaning
- Corrosive fluids and environments
- 304 or 316 stainless steel material for chemical compatibility
- Push to connect operation
- Global interchangeability with other ISO 16028 compliant couplings
- Standard sleeve lock guards against accidental disconnection
- Flat faces are easily wiped clean
- Flat face design prevents fluid loss during disconnection

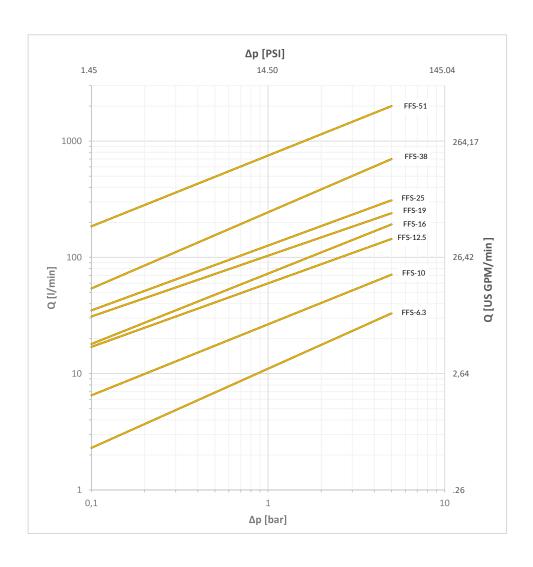
#### **Applications**

- Corrosive fluids and environments
- Marine
- Oil and gas
- Chemical
- Pharmaceutical
- Nuclear

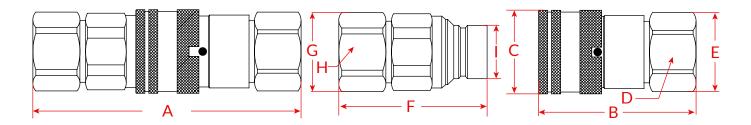
### **Technical Data**

| DN<br>Series Inch | DN<br>Metric | Q <sub>max</sub> |       | Working<br>Pressure |     | bursting<br>puresure<br>coupled |      | female body  |      | male tip     |      | spillage     |       |
|-------------------|--------------|------------------|-------|---------------------|-----|---------------------------------|------|--------------|------|--------------|------|--------------|-------|
|                   |              |                  | I/min | US GPM              | bar | psi                             | bar  | psi          | bar  | psi          | bar  | psi          | ml    |
| FFS-06            | 1/4"         | 6,3              | 40    | 10.57               | 350 | 5076                            | 1400 | 20305        | 1400 | 20305        | 1400 | 20305        | 0.01  |
| FFS-10            | 3/8"         | 10               | 80    | 21.13               | 250 | 3625                            | 1000 | 14503        | 1000 | 14503        | 1000 | 14503        | 0.015 |
| FFS-12            | 1/2"         | 12,5             | 120   | 31.70               | 250 | 3625                            | 1000 | 14503        | 1000 | 14503        | 1000 | 14503        | 0.02  |
| FFS-16            | 5/8″         | 16               | 140   | 36.98               | 250 | 3625                            | 1000 | 14503        | 1000 | 14503        | 1000 | 14503        | 0.02  |
| FFS-19            | 3/4"         | 19               | 180   | 47.55               | 200 | 2900                            | 900  | 13053        | 900  | 13053        | 900  | 13053        | 0.032 |
| FFS-25            | 1″           | 25               | 260   | 68.68               | 200 | 2900                            | 800  | <u>11603</u> | 800  | 11603        | 800  | <u>11603</u> | 0.03  |
| FFS-31            | 11/4"        | 31,5             | 600   | 158.50              | 200 | 2900                            | 800  | <u>11603</u> | 800  | <u>11603</u> | 800  | <u>11603</u> | 0.1   |
| FFS-38            | 11/2"        | 38               | 1000  | 264.17              | 150 | 2176                            | 650  | 9427         | 650  | 9427         | 650  | 9427         | 0.1   |
| FFS-51            | 2″           | 51               | 2350  | 620.80              | 150 | 2176                            | 650  | 9427         | 650  | 9427         | 650  | 9427         |       |

## Flow Characteristics



#### **Dimensions**



| Series Size Thred | Thread | Overall<br>Length | F<br>Length | O.D   | Hex  | O.D | M<br>Length | O.D   | Hex | O.D | Weigh | nt (g) |      |
|-------------------|--------|-------------------|-------------|-------|------|-----|-------------|-------|-----|-----|-------|--------|------|
|                   |        |                   |             | В     | С    | D   |             | F     | G   | Н   | I     | Female | Male |
| FFS-06            | 1/4"   | 1/4"              | 95.2        | 58.2  | 28   | 22  | 24          | 48    | 24  | 22  | 16.1  | 181    | 121  |
| FFS-10            | 3/8"   | 3/8"              | 113.9       | 68.1  | 32   | 27  | 29          | 61.5  | 26  | 24  | 19.7  | 298    | 172  |
| FFS-10            | 3/8"   | 1/2"              | 120.9       | 73.3  | 32   | 27  | 29          | 61.5  | 29  | 27  | 19.7  | 286    | 156  |
| FFS-12            | 1/2"   | 1/2"              | 125.3       | 75.1  | 38   | 32  | 34          | 68    | 34  | 32  | 24.5  | 544    | 351  |
| FFS-12            | 1/2"   | 3/4"              | 136.3       | 81.1  | 38   | 36  | 38          | 73    | 38  | 36  | 24.5  | 510    | 336  |
| FFS-16            | 5/8"   | 3/4"              | 132.9       | 79.9  | 42   | 36  | 38          | 70.5  | 38  | 36  | 27    | 557    | 346  |
| FFS-19            | 3/4"   | 1"                | 163.1       | 99.2  | 48   | 41  | 44          | 85.5  | 44  | 41  | 30    | 820    | 451  |
| FF-25             | 1"     | 1 1/4"            | 178         | 111.5 | 56   | 55  | 58          | 90    | 58  | 55  | 36    | 1164   | 744  |
| FF-31             | 11/4"  | 11/2"             | 233.4       | 150   | 79.5 | 65  | 68          | 112   | 68  | 65  | 57    | 2844   | 2134 |
| FF-38             | 1 1/2" | 2"                | 251.7       | 167   | 98.5 | 85  | 88          | 123.9 | 78  | 75  | 73    | 2844   | 2134 |

Dimensions in mm, O.D(I) can help users identify the size of the quick connector. You can compare it with the ISO16028 standard document to help users identify.

Dimensions and weights are based on NPT internal threads. For data on other threads, please contact us. Or view data on specific products on our website.

#### **Code Rules**

- Series FFS
- 2 Body Size, 06 = 1/4", 10 = 3/8" ... 51=2"
- 3 Part, F = Female Coupler, M = Male Nipple, Blank = Set(Female+Male)
- 4 Thread Type and Size, for example, NPT1/2, G3/4, SAE 3/4, JIC3/8 etc. and if the thread is male thread, it will have a M after the thread, for example NPT1/2 M.

## **Dust Caps**



| Size | Female Body | Male Tip   | Size  | Female Body | Male Tip   |
|------|-------------|------------|-------|-------------|------------|
| 1/4" | DC-FF-06 F  | DC-FF-06 M | 1"    | DC-FF-25 F  | DC-FF-25 M |
| 3/8" | DC-FF-10 F  | DC-FF-10 M | 11/4" | DC-FF-31 F  | DC-FF-31 M |
| 1/2" | DC-FF-12 F  | DC-FF-12 M | 11/2" | DC-FF-38 F  | DC-FF-38 M |
| 3/4" | DC-FF-19 F  | DC-FF-19 M | 2"    | DC-FF-51 F  | DC-FF-51 M |

The FFS series complies with the ISO16028 standard and is almost identical in size to the FF series, so the dust caps used in the FFS series are the same as those used in the FF series. Usually, the FFS series is used in corrosive liquid systems, so whether the material of the dust caps poses a risk needs to be considered.