



**Ranhill  
SAJ**

## **SPECIFICATION FOR FERRULES**

**SPECIFICATION SAJ FT / FE / 001  
(Rev. 5.0 /12.2018)**

**Ranhill**  
QUALITY ASSURANCE DEPARTMENT  
RANHILL SAJ SDN. BHD

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## SAJ SPECIFICATION FOR FERRULES

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## SPECIFICATION FOR FERRULES

### 1. GENERAL

1.1 Ferrules design, material and manufacture shall conform to the Specification For Ferrules MS 1396:1996

1.2 Types of ferrules:

1.2.1 Type A – swivel ferrules of ½" (15mm), ¾" (20mm), 1" (25mm), 1¼" (32mm), 1½" (40mm) and 2" (50mm)

1.3 Type A – Swivel ferrules shall be used for SAJ Holdings Sdn. Bhd approval.

### 2. DIMENSION

2.1 Ferrules shall be designed by the nominal diameter of the ferrule inlet in metric units. Dimensions are as in Table 1: Detail measurement of Type A Ferrule (see Appendix A for illustration).

**Table 1: Detail measurement of Type A Ferrule.**

Nominal Size	A	B	C	D	E	F
½" (15mm)	59 min	18.6 ±0.142	80 min	20 +0 -0.28	12 min	20 min
¾" (20mm)	63 min	24.1 ±0.142	80 min	26.44 +0 -0.28	15 min	20 min
1" (25mm)	74 min	30.3 ±0.18	85 min	33.25 +0 -0.36	15 min	21 min
1 ¼" (32mm)	103 min	38.95 ±0.18	96 min	41.91 +0 -0.36	20 min	25 min
1 ½" (40mm)	106 min	44.8 ±0.18	100 min	47.803 +0 -0.36	20 min	25 min
2" (50mm)	129 min	56.6 ±0.18	110 min	59.61 +0 -0.36	25 min	27 min

- 2.2 The ferrules shall have suitable access passable to any type of tapping machine drill bits of the corresponding size and the minimum stem inlet diameter shall be as in Table 2 – Internal Stem Diameter for Type A Ferrules

Ferrule size	Internal Stem Diameter (mm)
1/2"	13.5
3/4"	15.0
1"	21.5
1 1/4"	25.5
1 1/2"	31.5
2"	44.5

### 3. MATERIALS

- 3.1 Materials used for the various components of the ferrules are as in table below.

#### **Type A Ferrule**

Item	Component	Material	Grade
1.	Top Plug	Gunmetal	BS 1400 LG2
2.	Inner Plug	Gunmetal	BS 1400 LG2
3.	Body	Gunmetal	BS 1400 LG2
4.	Top Cap	Gunmetal	BS 1400 LG2
5.	Ferrule Stem	Gunmetal	BS 1400 LG2
6.	Top Plug Rubber	Nitrile Rubber	BS 2494/ ISO 4633
7.	Top Cap Washer	Nitrile Rubber	BS 2494/ ISO 4633
8.	Body Washer	Nitrile Rubber	BS 2494/ ISO 4633
9.	Plastic Cap	Plastic	

### 4. Pre – Delivery Inspection and Evaluation

- 4.1 It is the responsibility of the tenderer to inform SAJ for inspection purposes during manufacturing and before delivery.
- 4.1 SAJ reserve the right to inspect and witness the testing of product offered.
- 4.1 At any time, when requested, the supplier is to provide SAJ a sample of the product offered for evaluation purposes. All costs shall be borne by the supplier.
- 4.1 If at any time the supplier fails to deliver the required sample, the product is deemed fail to meet the specifications.

## 5. TESTS AND INSPECTION

5.1 All ferrules shall be capable of complying with the requirements of the specification

## 6. CERTIFICATION

6.1 Manufacturer and/or suppliers are required to provide a copy of the certificate and testing report from SIRIM, IKRAM or other recognized certification body.

6.1 Tests report required should be those tests conducted within a year period.

6.1 SAJ have the right to refuse offer or reject supply if the documents required are not enclosed.

## 7. MANDATORY MARKING

Each ferrous saddle shall be legibly marked in accordance with the following requirements.

- 7.1 Manufacturer's name or trade mark;
- 7.2 Size;
- 7.3 Year of manufacture (last two digits);
- 7.4 Ferrule type (Type A)
- 7.5 Lettering "SAJ"

## 8. PACKING

Ferrules shall be packed with proper methods and protected from damage during transit.

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# **SCHEDULE OF STORES**

# Ranhill SAJ

Ranhill SAJ Sdn. Bhd  
**SCHEDULE OF STORES Supply**  
**And Delivery of Ferrules**  
**To Specification SAJ FT/FE/001 For The Period of ..... Year(s)**

No	Description	Prov. Qty	Rate (RM)	Amount (RM)
<b>A</b>	<b>Type A Ferrule (mm dia.)</b>			
1	15mm			
2	20mm			
3	25mm			
4	32mm			
5	40mm			
6	50mm			
<b>B</b>	<b>Type B Ferrule (mm dia.)</b>			
1	15mm			
2	20mm			
3	25mm			

**(Ringgit:.....)**

Signature of Tenderer:..... Signature of witness:.....

Name:..... Name:.....

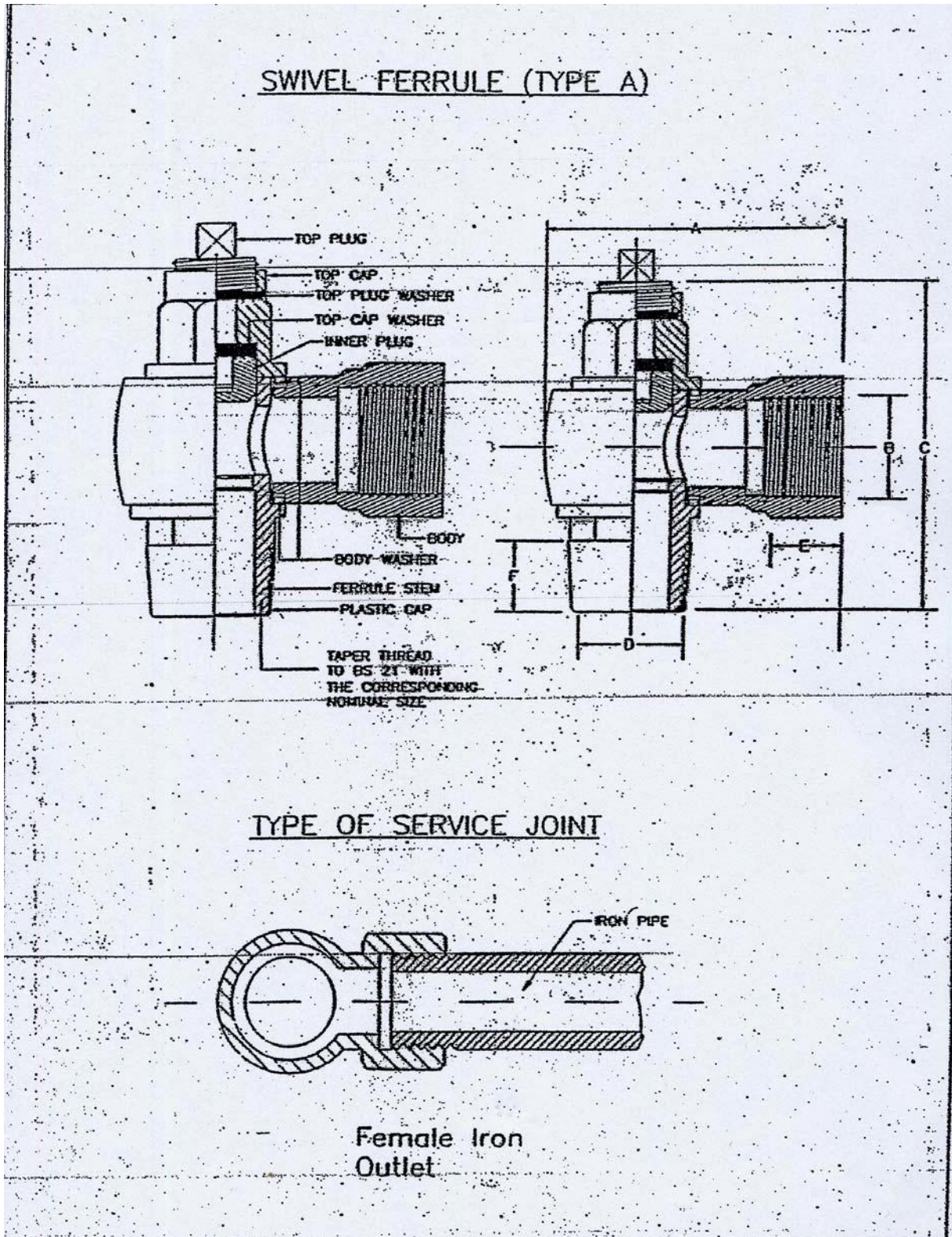
In the capacity of:..... Address:.....

Tenderer's Seal or chop:.....

Date:..... Date:.....



## Appendix A





## Appendix B

