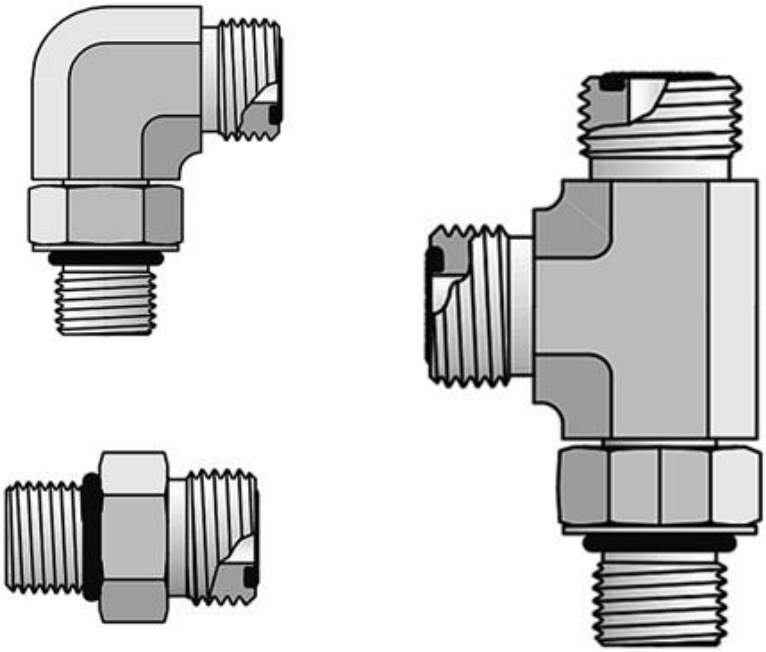
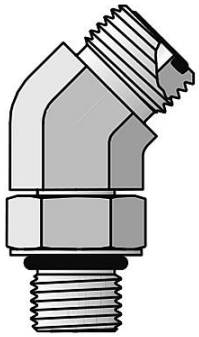
ORFS SAE ORB Fitting / SAE ORB Stud Connector





Industry Standard:

SAE J1453 / ISO 8434-3

Design And Shape Type:

Straight Male Stud Connector SAE 520120

Straight Extended Male Stud Connector SAE 521720

Straight Swivel Male Stud SAE 520181

Elbow Swivel Male Stud SAE 520281

Elbow Male Stud SAE 520220

Extended Male Stud Elbow SAE 521520

E45 Elbow Male Stud SAE 520320

Branch Tee Male Stud SAE 520429

Run Tee Male Stud SAE 520428

Material:

Carbon Steel/Stainless Steel

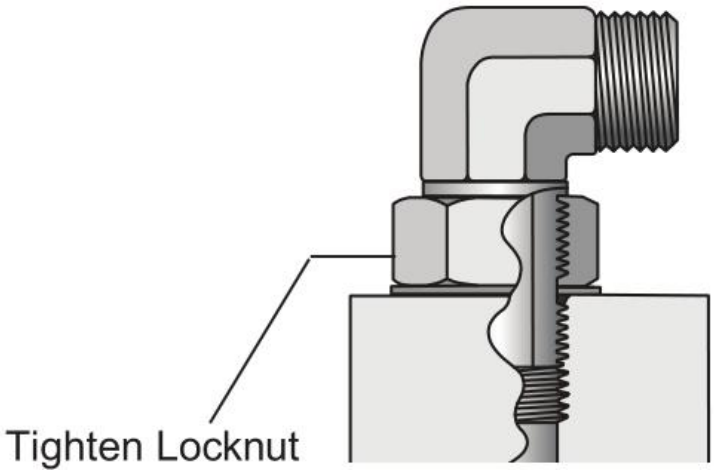
Finish:

Zinc Plated/Zn-Ni Alloy Plated

FITSCH

Introduction Of SAE ORB Stud ORFS Fittings

SAE (Society of Automotive Engineers) ORB(O-ring Boss) stud fittings is designed with O-ring face seal tube end, meet the strict requirement of SAE J1453 and ISO 8434-3 standards, SAE O-ring boss stud meet SAE J1926 and ISO 11926 standard. It is ports and stud ends with ISO 725 thread and O-ring seal in truncated housing. Types of SAE ORB Stud fitting are Non-adjustable and Adjustable ends, to match with SAE J1926-1 port.



Overview Types Of ORFS SAE ORB Fittings Catalogue

ORFS to SAE ORB connector is made of these shapes, from hex bar or forging body, it is interchangeable to Parker seal lok O-ring face seal tube fittings catalogue as follows

Straight Male Stud Connector SAE 520120

Straight Extended Male Stud Connector SAE 521720

Straight Swivel Male Stud SAE 520181

Elbow Swivel Male Stud SAE 520281

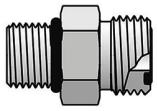
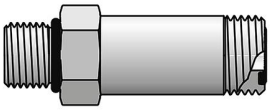
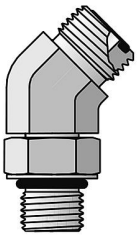
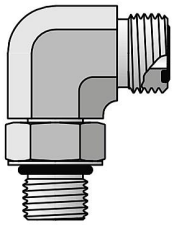
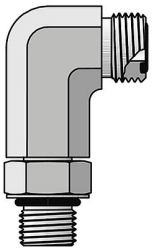
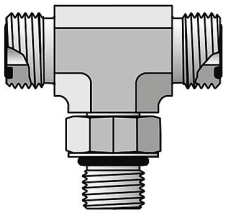
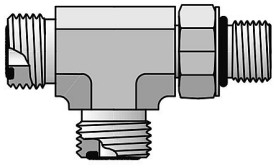
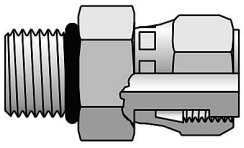
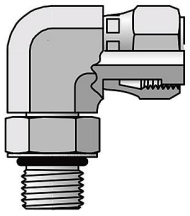
Elbow Male Stud SAE 520220

Extended Male Stud Elbow SAE 521520

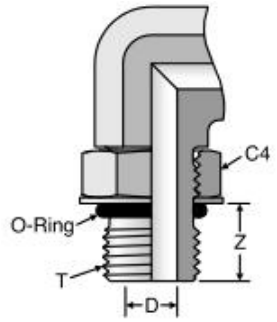
E45 Elbow Male Stud SAE 520320

Branch Tee Male Stud SAE 520429

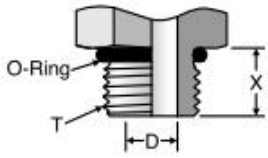
Run Tee Male Stud SAE 520428

1FO F5OLO Straight 	1FO-L FF5OLO Extended Straight 	1FO4-OG V5OLO E45 Elbow 
1FO9-OG C5OLO Elbow 	1FO9-LOG CC5OLO Elbow Extended 	AFOF-OG S5OLO Branch Tee 
AFFO-OG R5OLO Branch Tee 	2OF F65OL Swivel Straight 	2OF9 F65OL Swivel Elbow 

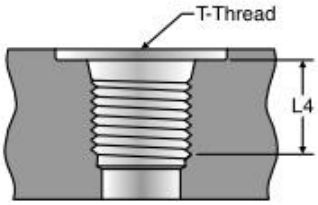
Dimensions of ORFS SAE ORB Stud Port Fittings from ISO 11926 SAE J1926



SAE J1926
Adjustable



SAE J1926
Nonadjustable

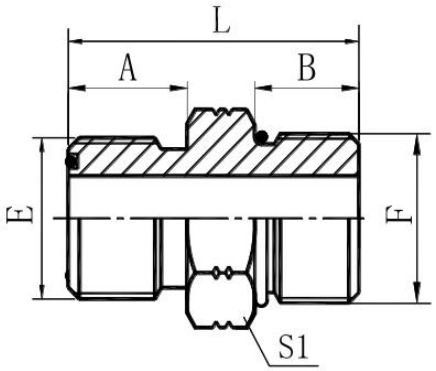


SAE J1926-1
Port[2)]

	Thread	Locknut Hex	Drill	Minimum Thread	Stud Length	
SIZE	T UN/UNF	C4 (inch)	D Ref. (inch)	L4 Min (inch)	X (inch)	Z Max (inch)
LIGHT DUTY						
2	5/16-24	7/16	0.063	0.39	0.297	0.36
3	3/8-24	1/2	0.126	0.39	0.297	0.33
4	7/16-20	9/16	0.177	0.454	0.36	0.39
5	1/2-20	5/8	0.236	0.454	0.36	0.43
6	9/16-18	11/16	0.295	0.5	0.391	0.43
8	3/4-16	7/8	0.394	0.562	0.438	0.49
10	7/8-14	1	0.492	0.656	0.5	0.56
12	1 1/16-12	1 1/4	0.61	0.75	0.594	0.65
14	1 3/16-12	1 3/8	0.709	0.75	0.594	0.65
16	1 5/16-12	1 1/2	0.846	0.75	0.594	0.65
20	1 5/8-12	1 7/8	1.083	0.75	0.594	0.65
24	1 7/8-12	2 1/8	1.319	0.75	0.594	0.65
32	2 1/2-12	2 3/4	1.772	0.75	0.594	0.59
HEAVY DUTY						
2	5/16-24	1/2	0.063	0.39	0.374	0.38
3	3/8-24	9/16	0.118	0.39	0.374	0.39
4	7/16-20	5/8	0.177	0.454	0.433	0.43
5	1/2-20	11/16	0.236	0.454	0.433	0.44
6	9/16-18	3/4	0.264	0.5	0.472	0.47
8	3/4-16	15/16	0.378	0.562	0.551	0.54
10	7/8-14	1 1/16	0.484	0.656	0.63	0.63
12	1 1/16-12	1 3/8	0.61	0.75	0.728	0.73
14	1 3/16-12	1 1/2	0.709	0.75	0.728	0.73
16	1 5/16-12	1 5/8	0.811	0.75	0.728	0.73
20	1 5/8-12	1 7/8	1.024	0.75	0.728	0.73
24	1 7/8-12	2 1/8	1.26	0.75	0.728	0.73
32	2 1/2-12	2 3/4	1.575	0.75	0.728	0.73

1FO F5OLO Of ORFS SAE ORB Straight Fittings

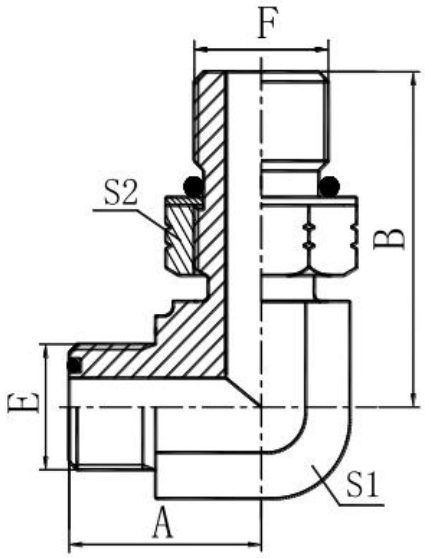
ISO 8434-3 / SAE J1453 SAE 520120 to SAE J1926/ISO 11926



PART NO.	THREAD		O O-RING		DIMENSIONS			
	E	F	E	F	A	B	L	S1
1FO-04Z	9/16"X18	7/16"X20	O011	O904	10	11	28.7	17
1FO-04-05Z	9/16"X18	1/2"X20	O011	O905	10	11	28.7	17
1FO-04-06Z	9/16"X18	9/16"X18	O011	O906	10	12	29.5	17
1FO-04-08Z	9/16"X18	3/4"X16	O011	O908	9.8	14	33.5	22
1FO-06-04Z	11/16"X16	7/16"X20	O012	O904	11.2	11	33.5	19
1FO-06-05Z	11/16"X16	1/2"X20	O012	O905	11.2	11	30.9	19
1FO-06Z	11/16"X16	9/16"X18	O012	O906	11.2	12	31.9	19
1FO-06-08Z	11/16"X16	3/4"X16	O012	O908	11.2	14	35	22
1FO-06-10Z	11/16"X16	7/8"X14	O012	O910	11.2	16	38.5	27
1FO-08-06Z	13/16"X16	9/16"X18	O014	O906	13	12	35	22
1FO-08Z	13/16"X16	3/4"X16	O014	O908	13	14	36.6	22
1FO-08-10Z	13/16"X16	7/8"X14	O014	O910	13	16	40.5	27
1FO-08-12Z	13/16"X16	1.1/16"X12	O014	O912	13	18.5	44.5	32
1FO-10Z	1"X14	7/8"X14	O016	O910	15.5	16	43.1	27
1FO-10-08Z	1"X14	3/4"X16	O016	O908	15.5	14	44	27
1FO-10-12Z	1"X14	1.1/16"X12	O016	O912	15.5	18.5	47	32
1FO-12-10Z	1.3/16"X12	7/8"X14	O018	O910	17	16	49	32
1FO-12Z	1.3/16"X12	1.1/16"X12	O018	O912	17	18.5	48.6	32
1FO-12-16Z	1.3/16"X12	1.5/16"X12	O018	O916	17	18.5	49.8	38
1FO-16-12Z	1.7/16"X12	1.1/16"X12	O021	O912	17.5	18.5	53	38
1FO-16Z	1.7/16"X12	1.5/16"X12	O021	O916	17.5	18.5	50.3	38
1FO-16-20Z	1.7/16"X12	1.5/8"X12	O021	O920	17.5	18.5	52	50
1FO-20-16Z	1.11/16"X12	1.5/16"X12	O025	O916	17.5	18.5	54	46
1FO-20Z	1.11/16"X12	1.5/8"X12	O025	O920	17.5	18.5	52.3	50
1FO-24-20Z	2"X12	1.5/8"X12	O029	O920	17.5	18.5	58	55
1FO-24Z	2"X12	1.7/8"X12	O029	O924	17.5	18.5	54.1	55

1FO9 C5OLO Of ORFS SAE ORB Elbow Fittings

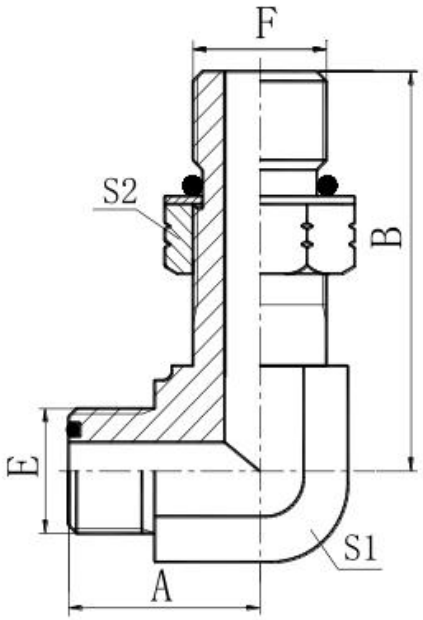
ISO 8434-3 / SAE J1453 SAE 520220 to SAE J1926/ISO 11926



PART NO.	THREAD		O O-RING		DIMENSIONS			
	E	F	E	F	A	B	S1	S2
1FO9-04OGZ	9/16"X18	7/16"X20	O011	O904	23	30.3	14	17
1FO9-04-06OGZ	9/16"X18	9/16"X18	O011	O906	23	32	14	19
1FO9-06-04OGZ	11/16"X16	7/16"X20	O012	O904	27.5	33.5	19	17
1FO9-06OGZ	11/16"X16	9/16"X18	O012	O906	27.5	34.5	19	19
1FO9-06-08OGZ	11/16"X16	3/4"X16	O012	O908	27.5	38	19	24
1FO9-06-10OGZ	11/16"X16	7/8"X14	O012	O910	29	45.3	22	27
1FO9-08-06OGZ	13/16"X16	9/16"X18	O014	O906	31	37	22	19
1FO9-08OGZ	13/16"X16	3/4"X16	O014	O908	31	40.5	22	24
1FO9-08-10OGZ	13/16"X16	7/8"X14	O014	O910	31	45.3	22	27
1FO9-08-12OGZ	13/16"X16	1.1/16"X12	O014	O912	34.5	52	27	32
1FO9-10-08OGZ	1"X14	3/4"X16	O016	O908	36.5	45	27	24
1FO9-10OGZ	1"X14	7/8"X14	O016	O910	36.5	50.8	27	27
1FO9-10-12OGZ	1"X14	1.1/16"X12	O016	O912	36.5	52	27	32
1FO9-12-10OGZ	1.3/16"X12	7/8"X14	O018	O910	41	52.8	30	27
1FO9-12OGZ	1.3/16"X12	1.1/16"X12	O018	O912	41	54	30	32
1FO9-12-16OGZ	1.3/16"X12	1.5/16"X12	O018	O916	43	55.5	33	41
1FO9-16-12OGZ	1.7/16"X12	1.1/16"X12	O021	O912	44.5	59	36	32
1FO9-16OGZ	1.7/16"X12	1.5/16"X12	O021	O916	44.5	59	36	41
1FO9-20OGZ	1.11/16"X12	1.5/8"X12	O025	O920	47.5	60.5	41	50
1FO9-20-24OGZ	1.11/16"X12	1.7/8"X12	O025	O924	51.5	66.5	48	55
1FO9-24-20OGZ	2"X12	1.5/8"X12	O029	O920	53.5	67.5	50	50
1FO9-24OGZ	2"X12	1.7/8"X12	O029	O924	52	66.5	48	55

1FO9-OGL C5OLO Of ORFS SAE ORB Extended Elbow Fittings

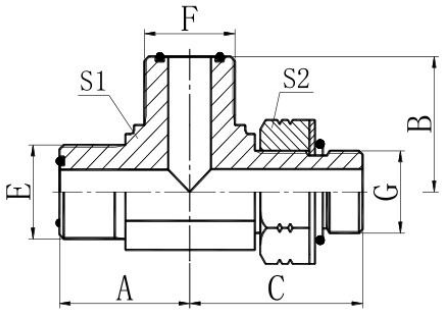
ISO 8434-3 / SAE J1453 SAE 521220 to SAE J1926/ISO 11926



PART NO.	THREAD		O O-RING		DIMENSIONS			
	E	F	E	F	A	B	S1	S2
1FO9-04OGLZ	9/16"X18	7/16"X20	O011	O904	23	44	14	17
1FO9-04-08OGLZ	9/16"X18	3/4"X16	O011	O908	25.5	63.5	19	24
1FO9-06OGLZ	11/16"X16	9/16"X18	O012	O906	27.5	52.8	19	19
1FO9-06-08OGLZ	11/16"X16	3/4"X16	O012	O908	27.5	63.5	19	24
1FO9-08OGLLZ	13/16"X16	3/4"X16	O014	O908	31	63.5	22	24
1FO9-08-10OGLZ	13/16"X16	7/8"X14	O014	O910	31	73.4	22	27
1FO9-10OGLZ	1"X14	7/8"X14	O016	O910	36.5	73.4	27	27
1FO9-12OGLZ	1.3/16"X12	1.1/16"X12	O018	O912	41	84.8	30	32
1FO9-12-16OGLZ	1.3/16"X12	1.5/16"X12	O018	O916	43	94.5	33	41
1FO9-16OGLZ	1.7/16"X12	1.5/16"X12	O021	O916	44.5	94.5	36	41

AFFO-OG R5OMLO Of ORFS SAE ORB Run Tee Fittings

ISO 8434-3 / SAE J1453 SAE 520428 to SAE J1926/ISO 11926



	THREAD			O O-RING			DIMENSIONS				
PART NO.	E	F	G	E	F	G	A	B	C	S1	S2
AFFO-04OGZ	9/16"X18	9/16"X18	7/16"X20	O011	O011	O904	23	23	30	14	17
AFFO-04-04-06OGZ	9/16"X18	9/16"X18	9/16"X18	O011	O011	O906	23	23	32	14	22
AFFO-06OGZ	11/16"X16	11/16"X16	9/16"X18	O012	O012	O906	27.5	27.5	35.5	19	22
AFFO-06-06-08OGZ	11/16"X16	11/16"X16	3/4"X16	O012	O012	O908	27.5	27.5	38	19	24
AFFO-08-08-06OGZ	13/16"X16	13/16"X16	9/16"X18	O014	O014	O906	31	31	37.5	22	22
AFFO-08OGZ	13/16"X16	13/16"X16	3/4"X16	O014	O014	O908	31	31	40.5	22	24
AFFO-08-08-10OGZ	13/16"X16	13/16"X16	7/8"X14	O014	O014	O910	31	31	45.3	22	30
AFFO-08-08-12OGZ	13/16"X16	13/16"X16	1.1/16"X12	O014	O014	O912	34.5	34.5	52	27	36
AFFO-10OGZ	1"X14	1"X14	7/8"X14	O016	O016	O910	36.5	36.5	50.8	27	30
AFFO-10-10-12OGZ	1"X14	1"X14	1.1/16"X12	O016	O016	O912	36.5	36.5	52	27	36
AFFO-12OGZ	1.3/16"X12	1.3/16"X12	1.1/16"X12	O018	O018	O912	40.3	40.3	55.3	30	36
AFFO-16-16-12OGZ	1.7/16"X12	1.7/16"X12	1.1/16"X12	O021	O021	O912	44.5	44.5	59.5	36	36
AFFO-16OGZ	1.7/16"X12	1.7/16"X12	1.5/16"X12	O021	O021	O916	44.5	44.5	59.3	36	41
AFFO-20OGZ	1.11/16"X12	1.11/16"X12	1.5/8"X12	O025	O025	O920	47.5	47.5	60.5	41	50
AFFO-24OGZ	2"X12	2"X12	1.7/8"X12	O029	O029	O924	53.5	53.5	68.5	50	55