

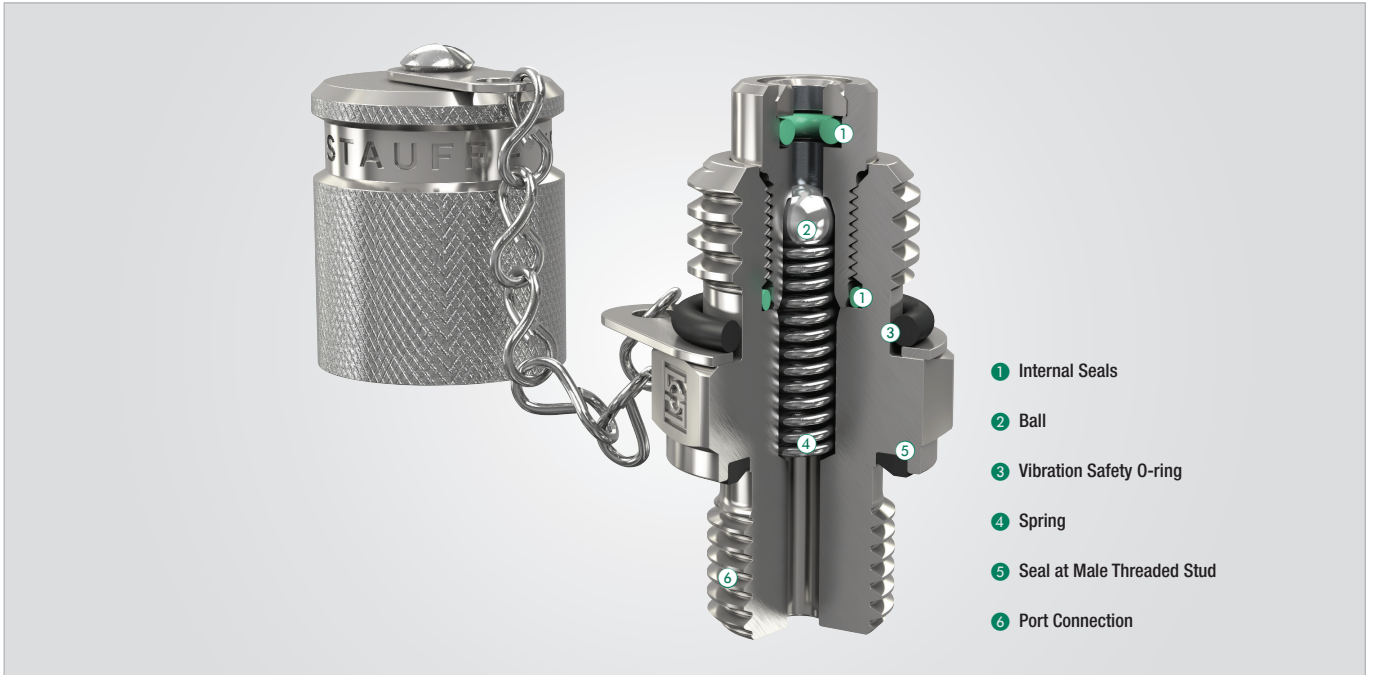
Test Coupling with Ball Check
SMK-20

A



Test Coupling with Ball Check SMK-20

A



- 1 Internal Seals
- 2 Ball
- 3 Vibration Safety O-ring
- 4 Spring
- 5 Seal at Male Threaded Stud
- 6 Port Connection

Fast Coupling for

- Monitoring and control of pressure
- Venting
- Sampling in high- and low-pressure systems
- Connection Thread according to ISO 15171-2

Advantages

- Test system at working pressure
- Leak proof connection before **Ball Check** is open
- Simple connection to measurement, control and switching devices
- Self locking metal protective cap

Working Pressure

- Max. working pressure 630 bar / 9137 PSI
For SMK Type G and K the recommended working pressure of fitting manufacturer should be noted.
- Connection under pressure up to 400 bar / 5801 PSI max.

Materials

- **Metal Parts:**
Standard material: Steel, zinc/nickel-plated = **W3**
Optional:
Stainless Steel **W4** (1.4305 / AISI 303) on request
Stainless Steel **W5** (1.4571 / AISI 316Ti) on request
- **Ball:** Stainless Steel

Seal Types:

B = NBR (Buna-N®)
(Temperature range -20 °C ... +100 °C / -4 °F ... +212 °F)
Note: Internal Seal Types made of FKM, even for standard NBR-type.

V = FKM (Viton®)*
(Temperature range -20 °C ... +200 °C / -4 °F ... +392 °F)

E = EPDM Ethylene Propylene Diene Monomer Rubber
(for Brake fluid, Temperature range -40 °C ... +150 °C / -40 °F ... +302 °F)

* Vibration safety O-ring made of NBR (Buna-N®).

Media

- Suitable for hydraulic oils and other Mineral oil based fluids
(Check compatibility of Seal Type material)
- For use with other liquid media please contact STAUFF

Protection Cap

- The complete STAUFF-Test-20-type-SMK range is also available with a hexagonal protection cap made of steel or plastic protection cap.

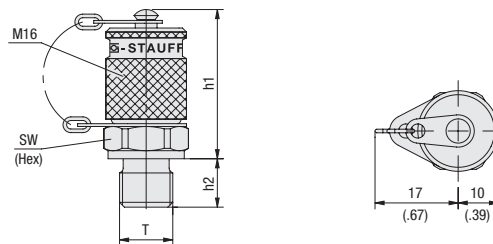
Colour Marking Rings

- Hydraulic test couplings and test hose assemblies of the STAUFF Test 20 and STAUFF Test 15 series made of steel and stainless steel can optionally be equipped with colour marking rings. Please see page 39 for more information.

SMK-20 Test Coupling with Male Threaded Stud and optionally colour marking ring	SMK-20 Type G Test Coupling with Straight 24° Fitting	SMK-20 Type K Test Coupling With 24° Taper / O-ring (DKO)	SMK-20-JIC Test Coupling with 37° JIC Connection	SSK-20 Bulkhead



Test Coupling with Male Threaded Stud SMK-20



Ordering Codes

SMK-20*-G1/4*-B*-C*-SK*-W3

* Type	Test Coupling with Ball Check	SMK
* Series	STAUFF Test 20 (Connection Thread M16x2)	-20
* Port Connection	acc. to dimension table	-G1/4
* Seal Material	NBR (Buna-N®)	-B
	FKM (Viton®)	-V
	EPDM	-E
	Seal Type B and D	none
* Seal Type	O-ring Type A	-A
	Metal Joint Type B	-B
	Elastomeric Sealing Type C	-C
	Taper Type D	-D
	O-ring Type E	-E
* Protection Cap	Knurled protection cap	-
	Hexagonal protection cap	-SK
	Plastic protection cap	-KK
* Material Code	Steel, zinc/nickel-plated	-W3
	Stainless Steel V2A - 1.4305 (AISI 303)	-W4
	Stainless Steel V4A - 1.4571 (AISI 316 Ti)	-W5

Seal Type



O-ring Type A



Metal Joint Type B



Elastomeric Sealing Type C



Taper Type D¹



O-ring Type E

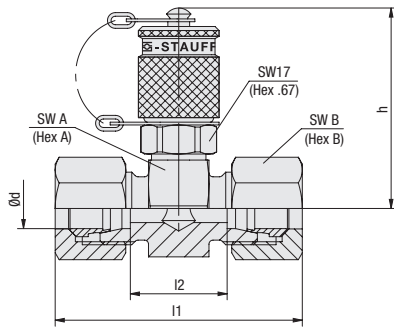
For further information on Seal Types,
please see page 74-77.

Thread	Seal Type	Working Pressure (^{bar} / _{PSI})	Dimensions (^{mm} / _{in})			Torque (^{Nm} / _{ft-lb}) ca.	Weight (^{kg} / _{lbs}) ca. per 100	Ordering Codes (Standard Option)
			h1	h2	Hex Thread T			
M8 x 1	Type A	250	38	8,5	17	6	6,10	SMK-20-M8x1-B-A-W3
		3625	1.50	.33	.67	4.4	13.42	
		630	38	9,8	17	12	6,70	SMK-20-M10x1-B-A-W3
M10 x 1	Type A	9137	1.50	.39	.67	8.8	14.74	
		400	37	8	17	18	6,60	SMK-20-M10x1-B-W3
M12 x 1,5	Type A	5801	1.46	.31	.67	13.3	14.52	
		630	37	12	17	35	7,00	SMK-20-M12x1.5-B-W3
M14 x 1,5	Type A	9137	1.46	.47	.67	25.8	15.40	
		630	37	12	19	55	7,50	SMK-20-M14x1.5-B-W3
M16 x 1,5	Type B	9137	1.46	.47	.75	40.6	16.50	
		630	37	12	22	70	8,40	SMK-20-M16x1.5-B-W3
G1/8	Type B	9137	1.46	.47	.87	51.6	18.48	
		400	39	8	17	18	6,90	SMK-20-G1/8-B-W3
G1/4	Type B	5801	1.54	.31	.67	13.3	15.18	
		630	37	12	19	55	7,30	SMK-20-G1/4-B-W3
G3/8	Type B	9137	1.46	.47	.75	40.6	16.06	
		630	37	12	22	90	8,90	SMK-20-G3/8-B-W3
M10 x 1	Type C	9137	1.46	.47	.87	66.4	19.58	
		400	39	8	17	18	6,80	SMK-20-M10x1-B-C-W3
M12 x 1,5	Type C	5801	1.54	.31	.67	13.3	14.96	
		630	37	12	17	35	6,90	SMK-20-M12x1.5-B-C-W3
M14 x 1,5	Type C	9137	1.46	.47	.67	25.8	15.18	
		630	37	12	19	50	7,70	SMK-20-M14x1.5-B-C-W3
M16 x 1,5	Type C	9137	1.46	.47	.75	36.9	16.94	
		630	37	12	22	60	8,70	SMK-20-M16x1.5-B-C-W3
G1/8	Type C	9137	1.46	.47	.87	44.2	19.14	
		400	39	8	17	18	6,80	SMK-20-G1/8-B-C-W3
G1/4	Type C	5801	1.54	.31	.67	13.3	14.96	
		630	37	12	19	45	8,10	SMK-20-G1/4-B-C-W3
G3/8	Type C	9137	1.46	.47	.75	33.2	17.82	
		630	37	12	22	80	8,90	SMK-20-G3/8-B-C-W3
G1/2	Type C	9137	1.46	.47	.87	59	19.58	
		630	39	14	27	110	12,80	SMK-20-G1/2-B-C-W3
R1/8 K	Type D ¹	9137	1.54	.55	1.06	81.1	28.16	
		400	37	8	17		6,70	SMK-20-R1/8K-D-W3
R1/4 K	Type D ¹	5801	1.46	.31	.67		14.74	
		630	35	12	17		7,10	SMK-20-R1/4K-D-W3
1/8 NPT	Type D ¹	9137	1.38	.47	.67		15.62	
		400	36	10	17		6,40	SMK-20-1/8NPT-D-W3
1/4 NPT	Type D ¹	5801	1.42	.39	.67		14.08	
		630	35	15	17		7,30	SMK-20-1/4NPT-D-W3
5/16-24 UNF	Type E	9137	1.38	.59	.67		16.06	
		400	38	7,5	17	8	6,70	SMK-20-5/16UNF-B-E-W3
7/16-20 UNF	Type E	5.801	1.50	.30	.67	5.9	14.74	
		630	38	9,1	17	20	7,00	SMK-20-7/16UNF-B-E-W3
1/2-20 UNF	Type E	9137	1.50	.36	.67	14.7	15.40	
		630	38	9,2	17	25	7,20	SMK-20-1/2UNF-B-E-W3
9/16-18 UNF	Type E	9137	1.50	.36	.67	18.4	15.84	
		630	37	10	19	35	7,60	SMK-20-9/16UNF-B-E-W3
3/4-16 UNF	Type E	9137	1.46	.39	.75	25.8	16.72	
		630	37	11.1	19	70	9,58	SMK-20-3/4UNF-B-E-W3
M10 x 1	Type E	9137	1.46	.44	.75	51.6	21.08	
		630	38	9,5	17	18	6,60	SMK-20-M10x1-B-E-W3
M12 x 1,5	Type E	9137	1.50	.37	.67	13.3	14.52	
		630	37	11	17	35	6,90	SMK-20-M12x1.5-B-E-W3
M14 x 1,5	Type E	9137	1.46	.43	.67	25.8	15.18	
		630	38	11	19	45	7,80	SMK-20-M14x1.5-B-E-W3
	Type E	9137	1.50	.43	.75	33.2	17.16	

¹ Suitable liquid / plastic sealant required.

Alternative materials and surface finishings are available upon request. Contact STAUFF for further information.
Torque recommendations for Steel mating material.



**Test Coupling with Straight 24° Fitting
SMK-20 Type G**
A


Series	PN (bar/psi)	Pipe Ød	Dimensions (mm/in)					Weight (kg/lbs) ca. per 100 ¹	Ordering Codes (Standard Option) ²
			~11 ³	l2	h	Hex A	Hex B		
L	315 4568	6	51	21	49	24	14	14,80	SMK-20-06L-G-W3-MS
			2.01	.83	1.93	.94	.55	32.56	
		8	51	21	49	24	17	15,80	SMK-20-08L-G-W3-MS
			2.01	.83	1.93	.94	.67	34.76	
		10	53	23	49	24	19	16,70	SMK-20-10L-G-W3-MS
			2.09	.91	1.93	.94	.75	36.74	
	12	53	23	50,5	27	22	20,00	SMK-20-12L-G-W3-MS	
		2.09	.91	1.99	1.06	.87	44.00		
	15	55	25	52	30	27	26,00	SMK-20-15L-G-W3-MS	
		2.17	.98	2.05	1.18	1.06	57.20		
	18	57	24	53	32	32	32,20	SMK-20-18L-G-W3-MS	
		2.24	.94	2.09	1.26	1.26	70.84		
	160 2320	22	61	28	55	36	36	38,90	SMK-20-22L-G-W3-MS
			2.40	1.10	2.17	1.42	1.42	85.58	
		28	61	28	57,5	41	41	45,20	SMK-20-28L-G-W3-MS
			2.40	1.10	2.26	1.61	1.61	99.44	
		35	69	26	60	46	50	63,80	SMK-20-35L-G-W3-MS
			2.72	1.02	2.36	1.81	1.97	140.36	
42	71	25	64,5	55	60	88,40	SMK-20-42L-G-W3-MS		
	2.80	.98	2.54	2.17	2.36	194.48			
S	630 9137	6	55	25	49	24	17	17,10	SMK-20-06S-G-W3-MS
			2.17	.98	1.93	.94	.67	37.62	
		8	55	25	49	24	19	18,10	SMK-20-08S-G-W3-MS
			2.17	.98	1.93	.94	.75	39.82	
		10	57	24	49	24	22	20,40	SMK-20-10S-G-W3-MS
			2.24	.94	1.93	.94	.87	44.88	
	12	57	24	49	24	24	22,10	SMK-20-12S-G-W3-MS	
		2.24	.94	1.93	.94	.94	48.62		
	14	63	27	50,5	27	27	28,20	SMK-20-14S-G-W3-MS	
		2.50	1.06	1.99	1.06	1.06	62.04		
	400 5801	16	63	26	52	30	30	32,20	SMK-20-16S-G-W3-MS
			2.50	1.02	2.05	1.18	1.18	70.84	
		20	69	26	55	36	36	47,30	SMK-20-20S-G-W3-MS
			2.72	1.02	2.17	1.42	1.42	104.06	
		25	75	27	57,5	41	46	76,40	SMK-20-25S-G-W3-MS
			2.95	1.06	2.26	1.61	1.81	168.08	
	30	81	28	60	46	50	86,80	SMK-20-30S-G-W3-MS	
		3.19	1.10	2.36	1.81	1.97	190.96		
315 4568	38	91	29	64,5	55	60	127,70	SMK-20-38S-G-W3-MS	
		3.58	1.14	2.54	2.17	2.36	280.94		

Ordering Codes
***SMK*-20*-18L*-G*-SK*-W3*-MS**

* Type	Test Coupling with Ball Check	SMK
* Series	STAUFF Test 20 (Connection Thread M16x2)	-20
* Outside Tube Diameter	acc. to dimension table	-18
* Series	Light Series	L
	Heavy Series	S
* Seal Material	FKM (Viton®) EPDM	none -E
* Connection	Straight 24° Fitting	-G
* Protection Cap	Knurled protection cap	-
	Hexagonal protection cap	-SK
	Plastic protection cap	-KK
* Material Code	Steel, zinc/nickel-plated	-W3
	Stainless Steel V2A - 1.4305 (AISI 303)	-W4
	Stainless Steel V4A - 1.4571 (AISI 316 Ti)	-W5
* Assembling / Kitting	Fitting body only	-
	Fitting body supplied with Cutting rings and union nuts	-MS
	Fitting body supplied with soft-sealing cutting rings and union nuts	-MSV

¹ Weight including cutting rings and union nuts.

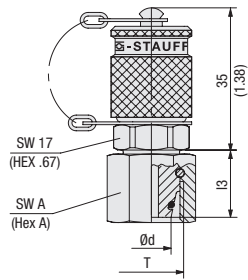
² Standard option: Fitting body supplied with Cutting rings and union nuts.

³ Approximate dimension in assembled condition.

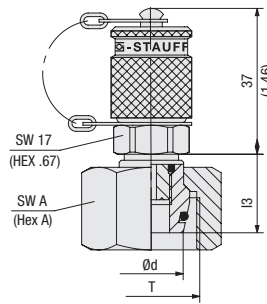
Port acc. to ISO 8434-1 / DIN 2353

Alternative materials and surface finishings are available upon request. Contact STAUFF for further information.



**Test Coupling with 24° Taper / O-ring (DKO)
SMK-20 Type K**
A


Version A



Version B



Series	PN (bar/PSI)	Pipe Ød	Dimensions (mm/in)		Thread	Version	Weight (kg/lbs) ca. per 100	Ordering Codes (Standard Option)
			l3	Hex A				
L	315 4568	6	15,5	14	M12 x 1,5	A	8,00	SMK-20-06L-B-K-W3
			.61	.55			17.60	
		8	15,5	17	M14 x 1,5	A	8,10	SMK-20-08L-B-K-W3
			.61	.67			17.82	
		10	16,5	19	M16 x 1,5	A	9,30	SMK-20-10L-B-K-W3
			.65	.75			20.46	
	12	17,5	22	M18 x 1,5	A	10,60	SMK-20-12L-B-K-W3	
		.69	.87			23.32		
	15	21	27	M22 x 1,5	B	12,80	SMK-20-15L-B-K-GS-W3	
		.83	1.06			28.16		
	18	19,5	32	M26 x 1,5	B	16,20	SMK-20-18L-B-K-GS-W3	
		.77	1.26			35.64		
	160 2320	22	20,5	36	M30 x 2	B	19,40	SMK-20-22L-B-K-GS-W3
			.81	1.42			42.68	
28		25	41	M36 x 2	B	25,10	SMK-20-28L-B-K-GS-W3	
		.98	1.61			55.22		
35	30	50	M45 x 2	B	40,50	SMK-20-35L-B-K-GS-W3		
	1.18	1.97			89.10			
42	31	60	M52 x 2	B	58,10	SMK-20-42L-B-K-GS-W3		
	1.22	2.36			127.82			
S	630 9137	6	14,5	17	M14 x 1,5	A	7,50	SMK-20-06S-B-K-W3
			.57	.67			16.50	
		8	16,5	19	M16 x 1,5	A	8,70	SMK-20-08S-B-K-W3
			.65	.75			19.14	
		10	16,5	22	M18 x 1,5	A	10,20	SMK-20-10S-B-K-W3
	.65		.87	22.44				
	12	17,5	24	M20 x 1,5	A	11,70	SMK-20-12S-B-K-W3	
		.69	.94			25.74		
	14	19,5	27	M22 x 1,5	B	13,10	SMK-20-14S-B-K-GS-W3	
		.77	1.06			28.82		
	400 5801	16	18	30	M24 x 1,5	B	15,40	SMK-20-16S-B-K-GS-W3
			.71	1.18			33.88	
		20	24	36	M30 x 2	B	22,00	SMK-20-20S-B-K-GS-W3
			.94	1.42			48.40	
25	26	46	M36 x 2	B	36,60	SMK-20-25S-B-K-GS-W3		
	1.02	1.81			80.52			
30	30	50	M42 x 2	B	42,70	SMK-20-30S-B-K-GS-W3		
	1.18	1.97			93.94			
315 4568	38	34	60	M52 x 2	B	63,70	SMK-20-38S-B-K-GS-W3	
		1.34	2.36			140.14		

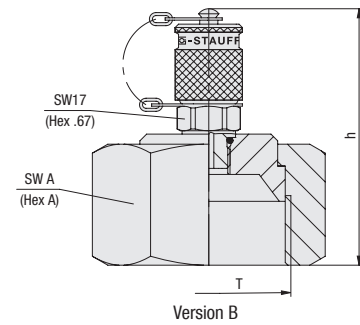
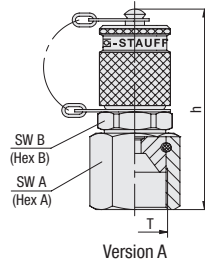
Ordering Codes
***SMK*-20*-18L*-B*-K*-GS*-SK*-W3**

* Type	Test Coupling with Ball Check	SMK
* Series	STAUFF Test 20 (Connection Thread M16x2)	-20
* Outside Tube Diameter	acc. to dimension table	-18
* Series	Light Series	L
	Heavy Series	S
* Seal Material	NBR (Buna-N®)	-B
	FKM (Viton®)	-V
	EPDM	-E
* Connection	24° Taper / O-ring (DKO)	-K
* Design	One-piece design (Version A)	-
	Screwed design (Version B)	-GS
* Protection Cap	Knurled protection cap	-
	Hexagonal protection cap	-SK
	Plastic protection cap	-KK
* Material Code	Steel, zinc/nickel-plated	-W3
	Stainless Steel V2A - 1.4305 (AISI 303)	-W4
	Stainless Steel V4A - 1.4571 (AISI 316 Ti)	-W5

With 24° Taper / O-ring (DKO) Connection acc. to ISO 8434-1 / DIN 2353
Alternative materials and surface finishings are available upon request. Contact STAUFF for further information.



**Test Coupling with 37° JIC Connection
SMK-20-JIC Type K**



Ordering Codes

***SMK*-20*-JIC3/4*-K*-GS*-SK*-W3**

* Type	Test Coupling with Ball Check	SMK
* Series	STAUFF Test 20 (Connection Thread M16x2)	-20
* Connection	37° JIC Connection	-JIC
* Outside Tube Diameter	acc. to dimension table	3/4
* Seal Material	FKM (Viton®) EPDM	none -E
* Connection	37° JIC Taper	-K
* Design	One-piece design (Version A) Screwed design (Version B)	- -GS
* Protection Cap	Knurled protection cap Hexagonal protection cap Plastic protection cap	- -SK -KK
* Material Code	Steel, zinc/nickel-plated	-W3
	Stainless Steel V2A - 1.4305 (AISI 303)	-W4
	Stainless Steel V4A - 1.4571 (AISI 316 Ti)	-W5

Pipe Ø inch	JIC- Size	Dimensions (mm/in)			Thread	Version	Weight (^{kg} /lbs) ca. per 100	Ordering Codes (Standard Option)
		h	Hex A	Hex B				
1/4	-4	53	17	17	7/16-20 UNF	A	8,40	SMK-20-JIC1/4-K-W3
		2.09	.67	.67			18.48	
5/16	-5	53,5	17	17	1/2-20 UNF	A	8,30	SMK-20-JIC5/16-K-W3
		2.11	.67	.67			18.26	
3/8	-6	55,5	19	17	9/16-18 UNF	A	9,10	SMK-20-JIC3/8-K-W3
		2.19	.75	.67			20.02	
1/2	-8	56,5	22	19	3/4-16 UNF	A	10,40	SMK-20-JIC1/2-K-W3
		2.22	.87	.75			22.88	
5/8	-10	60	27	22	7/8-14 UNF	A	14,20	SMK-20-JIC5/8-K-W3
		2.36	1.06	.87			31.24	
3/4	-12	70,5	32	-	1-1/16-12 UN	B	17,70	SMK-20-JIC3/4-K-GS-W3
		2.78	1.26	-			38.94	
1	-16	69	38	-	1-5/16-12 UN	B	26,90	SMK-20-JIC1-K-GS-W3
		2.72	1.50	-			59.18	
1-1/4	-20	73,5	50	-	1-5/8-12 UN	B	40,20	SMK-20-JIC1-1/4-K-GS-W3
		2.89	1.97	-			88.44	
1-1/2	-24	76	60	-	1-7/8-12 UN	B	63,50	SMK-20-JIC1-1/2-K-GS-W3
		2.99	2.36	-			139.70	

With 37° JIC Connection acc. to SAE J514

Alternative materials and surface finishings are available upon request. Contact STAUFF for further information.

