ENGINEERING TOMORROW



Synflex Optimum by Danfoss

Success starts on the **inside**

Thermoplastic lubrication and grease line



Work without limitations.

Synflex Optimum lubrication hose eliminates the friction.

Synflex Optimum by Danfoss hydraulic lubrication hoses and fittings protect your equipment from costly breakdowns due to poor lubrication. Without proper lubrication, critical bearing damage can occur from excessive heat, corrosion, and wear. Always protect valuable equipment by following these tips:

- Follow lubrication guidelines established by the manufacturer
- Grease pack bearings by forcing the grease between the rollers and cage to ensure the bearing is full
- Monitor equipment gauges for high temperature readings
- Take note of noise or unusual vibration
- Inspect equipment for lubricant leaks

Synflex Optimum lubrication hose



Poor lubrication can stop equipment in its **tracks**

Abrasion and wear from faulty lubrication is a leading factor in machine breakdown. Ensuring equipment bearings are properly lubricated is one of the most cost-effective methods for preventing costly repairs. Synflex Optimum lubrication hoses help make equipment maintenance a snap when utilized with a remote lubrication system.

The Synflex lubrication line-up

Hose

Synflex Optimum by Danfoss 3TR7

Synflex Optimum 3TR7 hose

Synflex Optimum 3TR7 lubrication hose is engineered to withstand extreme environmental conditions and high abrasion applications. Rely on Synflex Optimum to keep equipment on the move.

Fittings



4T crimp fitting

Optimized one-piece fitting crimps directly to the Synflex Optimum 100R7 hose for the most robust connection.



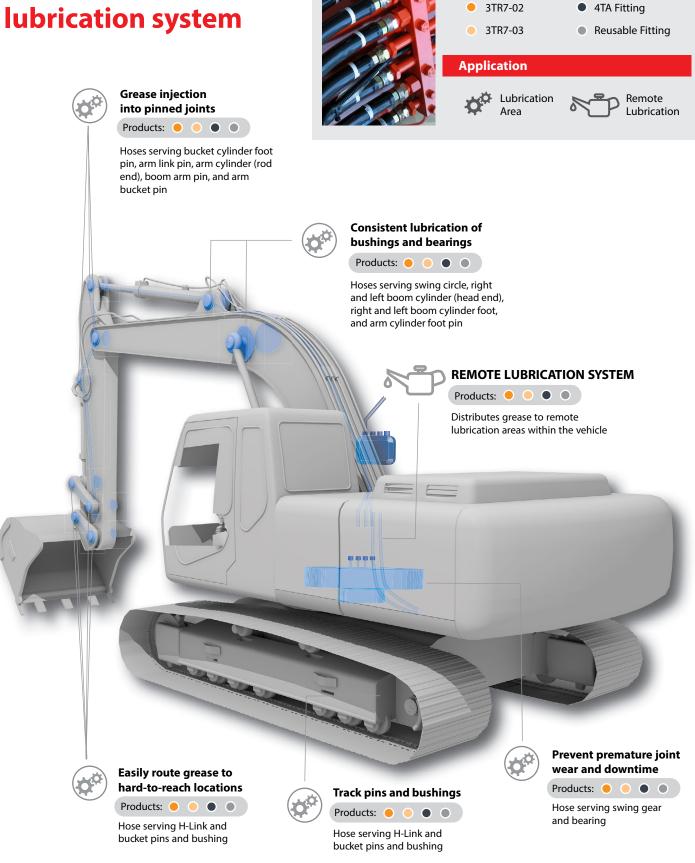
901 / 902 reusable fitting

Field attachable reusable fitting that can be assembled with hand tools made specifically for 100R7 hose.



Synflex Optimum hose is engineered to work with Danfoss fittings.

Excavator remote lubrication system



Products

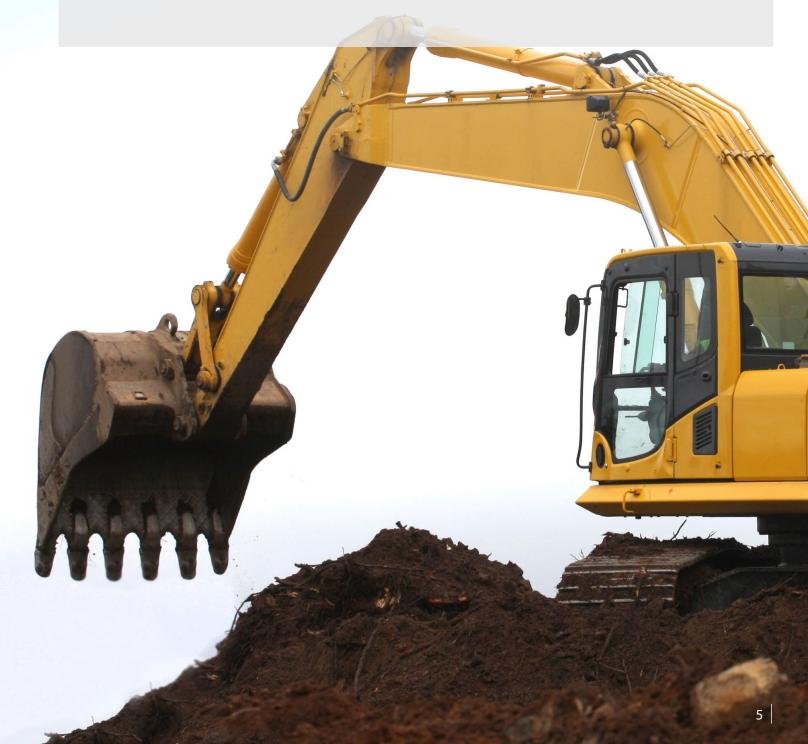
From concept to reality >

Danfoss understands the need of proper lubrication in machines, large to small. In response to this demand, Danfoss has created the Synflex Optimum lubrication and grease hose in sizes -02 and -03. These hoses maintain all the great benefits of our popular Synflex Optimum line while offering lubrication capabilities. Lubricate hard to reach bearings from one convenient location when used in conjunction with a remote lubrication system.

Remote lubrication hose advantages:

- Reduced component / labor costs
- Unnecessary adapter costs
- Light weight reduces freight cost
- · General lubrication issues
- Properly lubricate multiple points in less time

*when compared to 1/4" rubber hose



3TR7Conductive hose



1-textile braid

Reinforcement

Operating temperature

Oil-based fluids

-40°C to +100°C (-40°F to +212°F)

Water-based fluids

-40°C to +66°C (-40°F to +150°F)

Typical applications

- · General hydraulic systems
- · Lubrication systems
- · Instrument lines
- · Pilot lines
- · Hydraulic lines for lift chairs and beds
- Sprayer lines

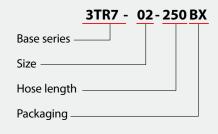
Fittings

- · 4T Series
- · 901 / 902 Series

Synflex Optimum by Danfoss 3TR

3TR7Conductive hose

PART	SIZE DII	MENSIONS	5		PRESSU	JRE			BEND		WEIGHT	
			Hose O	.D.		orking essure	Min. bı	ırst	Min. be	nd		
#	Hose I.[Э.	(nomin	al)	9	SAE	pressu	re	radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
3TR7-02	3.2	0.12	8.5	0.330	210	3,050	840	12,200	12.7	0.50	0.04	0.03
3TR7-03	4.8	0.19	10.8	0.425	210	3,050	840	12,200	19.0	0.75	0.07	0.05



BC: continuous length in box

BX: 2 lengths per box, no length less than 20 ft.

RL: random length reel, 2 lengths per reel, no length less than 20 ft.

RC: continuous length on reel

Designed for efficiency.

Over 500+ combinations of terminal ends.



Best-in-class features come standard.

Seamless compatibility

Synflex Optimum fittings are optimized to work together with Synflex Optimum thermoplastic hydraulic hoses.

Single piece design

Synflex Optimum 4TA fittings follow a simple one-piece design that reduces matching errors during assembly and eliminates brazing failure risks and lowers assembly time.

Captive nut

A captive nut eliminates the weak spots found in other fittings. It evenly distributes the force applied during assembly, helping prevent cracks and leaks that halt workflows and lead to unplanned downtime.

Easy assembly

Easier insertion, less force needed during assembly to push fitting onto hose

More configurations

Over 500+combinations of terminal ends

Designed for ease of use.

Smaller profile

They have a compact design and smaller profile making it easier for routing and assembly installation, especially in tight spaces.

Easy identification

Part numbers printed on fittings for easy identification.



Designed to last.

Corrosion resistance

DURA-KOTE[®] plating comes standard in our Synflex Optimum fittings. DURA-KOTE plating delivers up 3x the corrosion protection on carbon steel fittings as compared to competitive hose fittings. And provides up to 1,000 hours of corrosion resistance. This is a huge step forward in metal fitting corrosion protection.



Corrosion comparison after 650 hours of exposure to salt spray testing.

12 FJ Complete nipple part number: Product Group _____ 4T = one piece non-skive braided fitting Material stock code ——— A = inch hex stock or metric equivalent Terminal end connection size* ———— Terminal end connection code ——— $BG = BSP 60^{\circ}$ (swivel) with O-ring (BS5200) CB = SAE 37° Male flare bulkhead (with jam nut) DL = DKO female swivel light duty FJ = SAE JIC 37° Female swivel FP = NPTF Female pipe FR = ORS Female swivel MB = Male O-ring boss (ORB) MC = Male STCMJ = SAE JIC 37° male rigid MP = Male pipe rigid MR = ORS male NR = ORS Female with non-slide back nut PF = Female pipe swivel PS = Male pipe swivel SP = NPSM female pipe swivel ZB = NPSM Bulkhead with Grease Zerk and Jam Nut ZP = Zerk male tapered Terminal end connecting configuration ————— If nipple has a straight configuration, then this position collapses $=45^{\circ}$ $D = 22 \frac{1}{2}^{\circ} H = 110^{\circ}$ Α $E = 67 \, 1/2^{\circ}$ = 90°, standard or short drop $F = 30^{\circ}$ $C = 90^{\circ} long drop \qquad G = 60^{\circ}$ Hose size* Material designation — C = stainless steel, if fitting is zinc plated carbon

steel (standard), this position collapses.

* When ordering sizes 3, 4, 5, 6 and 8 the part number requires only single digits

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4T fittings





JIC/37° Female Swivel



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
4TA2FJ2	2	2	5/16-24
4TA3FJ2	2	3	3/8-24
4TA4FJ2	2	4	7/16-20
4TA4FJ3	3	4	7/16-20
4TA5FJ3	3	5	1/2-20



JIC/37° Female Swivel



PART	SIZE INFO	o	DIMENSIONS
#	Hose	Terminal End	Thread
4TA4FJA3	3	4	7/16-20

JIC/37° Female Swivel



PART	SIZE INFO)	DIMENSIONS
#	Hose	Terminal End	Thread
4TA4FJB2	2	4	7/16-20
4TA4FJB3	3	4	7/16-20

FR

ORS Female Swivel



PART	SIZE INFO	Э	DIMENSIONS
#	Hose	Terminal End	Thread
4TA4FR2	2	4	9/16-18

ORS Female Swivel, 90°



PART	SIZE INF	О	DIMENSIONS
#	Hose	Terminal End	Thread
4TA4FRB2	2	4	9/16-18

Male O-ring Boss (ORB)



PART	SIZE INFO	o	DIMENSIONS
#	Hose	Terminal End	Thread
4TA4MB3	3	4	7/16-20



SAE JIC 37° Male Rigid



PART	SIZE INFO)	DIMENSIONS
#	Hose	Terminal End	Thread
4TA4MJ3	3	4	7/16-20



Male Pipe Rigid



PART	SIZE INFO	O	DIMENSIONS
#	Hose	Terminal End	Thread
4TA2MP2	2	2	1/8-27
4TA4MP2	2	4	1/4-18
4TA2MP3	3	2	1/8-27
4TA4MP3	3	4	1/4-18

Female Pipe Swivel



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
4TA4PF2	2	4	1/4-18
4TA2PF3	3	2	1/8-27

Male Pipe Swivel



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
4TA2PS2	2	2	1/4-18

NPSM Bulkhead with Grease Zerk and Jam Nut



PART	SIZE INF	0	DIMENSIONS
#	Hose	Terminal End	Thread
4TA2ZB2	2	2	1/8-27
4TA2ZB3	3	2	1/8-27

Zerk Male Tapered



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
4TA2ZP2	2	2	1/4-28
4TA2ZP3	3	2	1/4-28

Reusable fittings



Male Pipe Swivel



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
90102-021400-0	2	2	1/8-27

Female JIC Swivel



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
90102-035500-0	2	3	3/8-24
90102-045400-0	2	4	7/16-20
90103-045400-0	3	4	7/16-20

Male Pipe Rigid



PART	SIZE INFO		DIMENSIONS
#	Hose	Terminal End	Thread
90102-021000-0	2	2	1/8-27
90203-041000-0	3	4	1/4-18



Synflex Optimum by Danfoss

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