HYDRAULIC HOSETO EN / SAE STANDARD

THE WORLD OF HOSE

GTH



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-size	DN			mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-4	6	1/4	0.50	12.7	400	2.8	1600	11.2	65	710	13	4GTH
-5	8	5/16	0.56	14.3	400	2.8	1600	11.2	75	710	15	5GTH
-6	10	3/8	0.63	15.9	400	2.8	1600	11.2	75	710	17	6GTH
-8	12	1/2	0.78	19.8	400	2.8	1600	11.2	100	450	23	8GTH
-10	16	5/8	0.91	23.0	350	2.4	1400	9.6	125	380	28	10GTH
-12	19	3/4	1.06	26.9	300	2.1	1200	8.4	150	380	38	12GTH
-16	25	1	1.32	33.5	250	1.7	1000	6.9	165	250	47	16GTH

RECOMMENDED FOR High-temperature, low pressure hydraulic oil lines, heavy-duty transmission oil

cooler lines and glycol anti-freeze solutions.

TUBE NBR (Nitrile) based.

REINFORCEMENT One fibre braid.

CR (Chloroprene) based.

TEMPERATURE RANGE -40°C to +135°C constant and +150°C intermittent. For water emulsions, etc.

see Temperature Limits Table.

STANDARDS Meets ISO 4079 R6 / EN 854 R6 / SAE 100R6 (-4 to -12).

COUPLINGS MegaCrimp®.

SELECTING THE CORRECT HOSE

ENGINEERING AND TECHNICAL DATA

Water temperature limits for hydraulic hoses

According to ISO 8330 "Rubber and plastic hoses and hose assemblies - Vocabulary", the working temperature is the "maximum or minimum temperature at which a hose is designed to be serviceable". This temperature range is indicated in the hose pages. However, note that the nature of the hydraulic fluid used can lower the maximum working temperature. The below chart shows the maximum working temperature for Gates hoses when used with water-based hydraulic fluids.

The main reasons for lowering maximum working temperatures of hydraulic systems using water-based hydraulic fluids are:

- > Hot water can leach the plasticiser out of the rubber compound, whereby the hose becomes stiff and brittle.
- > Heated water even under pressure can de-gas and cause gas bubbles. These gas bubbles contain about 20% oxygen which will lead to oxidation of the metal parts of the system.
- > Mixed phases of hot water and steam can occur, which causes several issues like tube popcorning, permeation of steam through the walls of the hose and even steam hammer.

Maximum Temperature limits for Water, Water/Oil Emulsions and Water/Glycol Solutions.									
HOSE	Pressure lines	Return lines							
EFGxK, MxK, HD-UHP, CM2T, M2T, G2, G1, G2L, LOL, EFGxKL, M4KL, GP80 PLUS	+93°C	+82°C							
G2H, G1H, Megatech, G2XH, G3H, GTH, M4KH, M3KH, GMV	+107°C	+82°C							
TH8, TH7	+70°C	+70°C							

CAUTION!

The fluid manufacturer's recommended maximum temperature for any given fluid must not be exceeded. If different from the above listed hose temperatures, the lower limit must be chosen.