FIELD BULLETIN 188

MEGACRIMP DIN LIGHT HOSE COUPLINGS
UPGRADE OF MAXIMUM WORKING PRESSURE

International coupling standard ISO 12151-2, like international hose assembly standards, dictates minimum requirements for performance features. As is the case for hose assembly standards, coupling standards also include maximum working pressures capabilities. Gates® tradition in MegaSys™ products is to beat the feature requirements stipulated in international reference standards and this is a design and development strategy that never stops.

The coupling section of "The Gates Fluid Power" catalogue states to always follow the pressure rating of the respective international standard as a minimum (unless otherwise states). In many cases, however, Gates goes well above the reference maximum working pressure – especially on high pressure GlobalSpiral™ couplings. Similar to the engineering work that has been done with regard to the pressure upgrade of the Code 61 flanges a number of years ago, Gates has now finalized similar extensive testing to accommodate for increased pressure capability of the MegaCrimp DKOL terminations (Gates' FDLORX/MDL nomenclature).

DIN LIGHT: MAXIMUM WORKING PRESSURE

The working pressure of a hose assembly is determined by the weakest link of the assembly. Consequently, the selection of each component should be done thoroughly as it has an implication on the final maximum pressure rating. Gates has designed all elements of the hose assembly together to produce factory quality assemblies which perform according to or above any international standard. This unique approach, which is called the Gates Integrated System approach, is how Gates ensures full compliance with the European Machinery Directive, optimal performance and an extended lifetime.

DIN LIGHT - as included in the respective international coupling standard ISO 12151-2 - is such an example of the weakest link. To accommodate for higher working pressures in applications and at the same time assure safe hydraulics is supported at all times, our currently available DIN Light terminations have been upgraded based on extensive testing (Testing conducted depends on coupling design/size but includes hydrostatic testing of each size/design as a minimum).

An overview of the maximum working pressure according to international standard ISO 8434-1 and Gates can be found below.

HOSE ID	TERMINATION SIZE	ISO 8434 MXP	GATES MWP
-4	6L	25.0 MPa	42.0 MPa
	8L	25.0 MPa	42.0 MPa
	10L	25.0 MPa	42.0 MPa
	12L	25.0 MPa	42.0 MPa
-5	8L	25.0 MPa	38.5 MPa
	10L	25.0 MPa	38.5 MPa
	12L	25.0 MPa	38.5 MPa
-6	10L	25.0 MPa	38.5 MPa
	12L	25.0 MPa	38.5 MPa
	14L	25.0 MPa	38.5 MPa
	15L	25.0 MPa	38.5 MPa
-8	12L	25.0 MPa	35.0 MPa
	15L	25.0 MPa	35.0 MPa
	18L	16.0 MPa	35.0 MPa
-10	15L	25.0 MPa	28.0 MPa
	18L	16.0 MPa	28.0 MPa
-12	18L	16.0 MPa	28.0 MPa
	22L	16.0 MPa	28.0 MPa
-16	28L	10.0 MPa	22.4 MPa
-20	35L	10.0 MPa	16.0 MPa
Note 1: The working pressure of the hose assembly shall be the lower of the pressures given for its size in the relevant hose in the above table.			
Note 2: In case of brazed constructions the MWP is according to ISO 8434.			