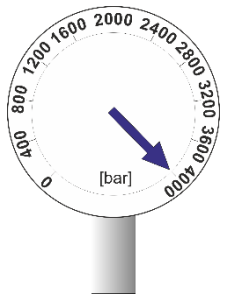
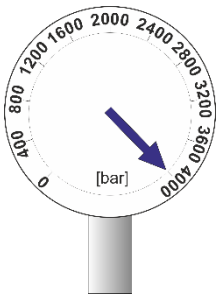
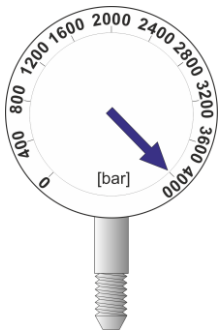
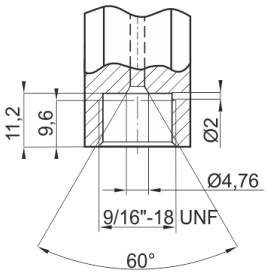
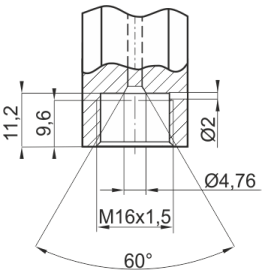
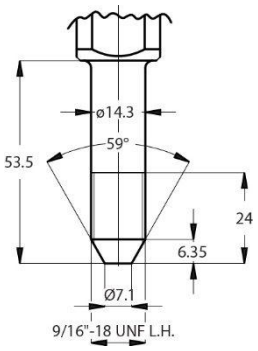
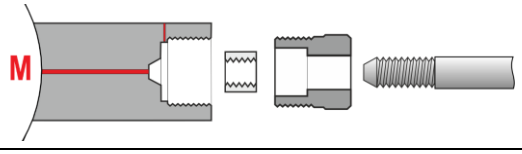
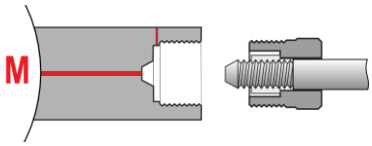
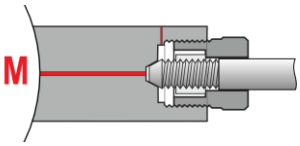
Pressure gauges of the MGS22 series - HP process connections

Standard gauge connections 1/2” BSP or NPT are not suitable for the huge forces arising in such a joint at measuring pressures of several thousand bar. Therefore MGS22 series gauges are fitted with HP process connections commonly used in equipment employing an ultra-high-pressure water jet – primarily for cutting, cleaning or crushing materials. HP connections and their components are described in detail in the „MP/HP Fittings” chapter.

Process connections of MGS22 gauges			
designation	**D5**	**D6**	**D7**
drawing illustrative of the gauge			
type of connection	HP port 1/4”	HP port 1/4” WBL (WATERBLAST)	HP tube 9/16”
drawing connections process HP			
connection system	HP standard for 1/4” tube	HP standard waterblast for 1/4” tube	HP standard for 9/16” tube
components required for connection	nut SS-UHP-CLR-04-HP ring SS-UHP-GN-04-HP	nut SS-UHP-GN-M16 ring SS-UHP-CLR-04-HP	nut SS-UHP-GN-09-HP or SS-UHP-GN-M30 or SS-UHP-GN-M26 ring SS-UHP-CLR-09-HP
example installation component	nipple HP 1/4” SS-UHP-HMM4-03	nipple HP 1/4” SS-UHP-HMM4-08	tee HP 9/16” SS-UHP-HT-HF-09

Mounting a gauge (M) fitted with a process connection - HP port to an installation - tube or nipple HP	
Separate components: • tube or nipple HP with male UNF LH (left-hand) thread and 58° cone, • nut with male thread, • thrust ring with female UNF LH (left-hand) thread.	
Components ready for assembly: a nut with male thread and a thrust ring with left-hand female thread screwed onto the tube, so that 1 to 2 thread turns are visible on the tube cone side (nipple).	
Tightening the joint: • first by hand (the tube should not rotate – it should stiffen), • then with a wrench at the appropriate torque (table in the „MP/HP Fittings” chapter) – using the wrench flats on the connection (not the gauge housing).	
Mounting a gauge fitted with a connection – HP tube to an installation via an adaptor (e.g. tee) with an HP port proceeds analogously.	