## **INDUSTRIAL FITTINGS - couplings**

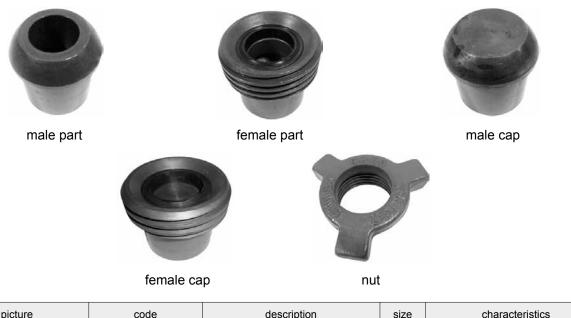
### HAMMER LUG system



Material:A105 carbon steel<br/>(for types 100 ÷ 400)<br/>AISI 4130steel<br/>(for 600 ÷ 2202 types)Working press.:From 69 bar up to 1378 bar<br/>(depending on type)

The HAMMER LUG couplings are designed for quick connection of flexible hose assemblies and pipelines. Widely used in transfer applications for air, oil, water, drilling fluid, gas and other substances. Available in a variety of options (threaded, butt weld) in diameters from 1" up to 8". Available with DNV Type Approval. To find out more about HAMMER LUG offer, please contact Sales Department of TUBES INTERNATIONAL<sup>®</sup>.

#### Note: Connection of different figures is forbidden!



picture	code	description	size	characteristics	
	Fig. 100				
	HL-FIG0100KG-050	(male, female + wing nut)	2"		
	HL-FIG0100DG-050	female	2"		
	HL-FIG0100MG-050	male	2"		
	HL-FIG0100NG-050	wing nut	2"		
	HL-FIG0100KG-075	(male, female + wing nut)	3"	Conoral nurnana law propaura	
	HL-FIG0100DG-075	female	3"	General purpose low pressure coupling. Widely used to transfer	
	HL-FIG0100MG-075	male	3"	air, water, oil and gas.	
	HL-FIG0100NG-075	wing nut	3"	Colour: yellow / black.	
13	HL-FIG0100KG-100	(male, female + wing nut)	4"	Pressure: 1000 PSI (69 bar).	
	HL-FIG0100DG-100	female	4"	Material: carbon steel.	
	HL-FIG0100MG-100	male	4"	Connection: NPT female thread. Seal: metal / metal (cone).	
	HL-FIG0100NG-100	wing nut	4"	Seal. metal / metal (cone).	
	HL-FIG0100KG-150	(male, female + wing nut)	6"		
	HL-FIG0100DG-150	female	6"		
	HL-FIG0100MG-150	male	6"		
	HL-FIG0100NG-150	wing nut	6"		



## HAMMER LUG system

### table continuation:

picture	code	description	size	characteristics		
		Fig. 200				
	HL-FIG0200KG-025	(male, female + wing nut)	1"			
	HL-FIG0200DG-025	female	1"			
	HL-FIG0200MG-025	male	1"	General purpose coupling widely used to transfer air, water, oil and gas. Perfect for applications up to 2000 PSI.		
	HL-FIG0200NG-025	wing nut	1"			
	HL-FIG0200KG-050	(male, female + wing nut)	2"			
	HL-FIG0200DG-050	female	2"			
	HL-FIG0200MG-050	male	2"			
	HL-FIG0200NG-050	wing nut	2"			
	HL-FIG0200KG-075	(male, female + wing nut)	3"	Colour: grey/blue. Pressure: 2000 PSI (138 bar).		
	HL-FIG0200DG-075	female	3"	Material: carbon steel.		
	HL-FIG0200MG-075	male	3"	Connection: NPT female thread.		
	HL-FIG0200NG-075	wing nut	3"	Seal: metal/metal (cone).		
	HL-FIG0200KG-100	(male, female + wing nut)	4"	-		
	HL-FIG0200DG-100	female	4"			
	HL-FIG0200MG-100	male	4"			
	HL-FIG0200NG-100	wing nut	4"	-		
		Fig. 206	I			
	HL-FIG0206KG-050	(male, female + wing nut)	2"			
	HL-FIG0206DG-050	female	2"	General purpose coupling widely		
	HL-FIG0206MG-050	male	2"	used to transfer air, water, oil and		
	HL-FIG0206NG-050	wing nut	2"	gas. Perfect for medium pressure applications. Additional O-ring im proves sealing and extends service life. Colour: grey/blue. Pressure: 2000 PSI (138 bar).		
	HL-FIG0206KG-100	(male, female + wing nut)	4"			
	HL-FIG0206DG-100	female	4"			
14	HL-FIG0206MG-100	male	4"			
	HL-FIG0206NG-100	wing nut	4"			
	HL-FIG0206KG-150	(male, female + wing nut)	6"	Material: carbon steel. Connection: NPT female thread.		
	HL-FIG0206DG-150	female	6"	Seal: metal/metal (cone) + addition-		
	HL-FIG0206MG-150	male	6"	al seal (NBR).		
	HL-FIG0206NG-150	wing nut	6"	-		
		Fig. 602				
	HL-FIG0602KG-025	(male, female + wing nut)	1"			
	HL-FIG0602DG-025	female	1"	-		
	HL-FIG0602MG-025	male	1"	-		
	HL-FIG0602NG-025	wing nut	1"	General purpose coupling widely		
	HL-FIG0602KG-050	(male, female + wing nut)	2"	used to transfer air, oil and gas.		
	HL-FIG0602DG-050	female	2"	Lip type elastomeric seal (NBR)		
	HL-FIG0602MG-050	male	2"	protects metal-to-metal seal and re-		
	HL-FIG0602NG-050	wing nut	2"	duces turbulence in the line. Colour: orange/black.		
M 1-31	HL-FIG0602KG-075	(male, female + wing nut)	3"	Pressure: 6000 PSI (414 bar).		
	HL-FIG0602DG-075	female	3"	Material: AISI 4130 chromium mo-		
	HL-FIG0602MG-075	male	3"	lybdenum-plated steel.		
	HL-FIG0602NG-075	wing nut	3"	Connection: NPT female thread. Seal: metal/metal (cone) + addition-		
	HL-FIG0602KG-100	(male, female + wing nut)	4"	al lip type seal (NBR).		
	HL-FIG0602DG-100	female	4"			
	HL-FIG0602MG-100	male	4"	1		
	HL-FIG0602NG-100	wing nut	4"	-		
	112-1100002100-100	wing hat	-	I		



# **INDUSTRIAL FITTINGS - couplings**

## HAMMER LUG system

table continuation:

picture	code	description	size	characteristics
	Fig. 1002			
	HL-FIG1002KG-050	(male, female + wing nut)	2"	
	HL-FIG1002DG-050	female	2"	
	HL-FIG1002MG-050	male	2"	
	HL-FIG1002NG-050	wing nut	2"	General purpose high pressure cou- pling. Widely used in cement tank trucks and high pressure equip-
	HL-FIG1002KG-100	(male, female + wing nut)	4"	
	HL-FIG1002DG-100	female	4"	
	HL-FIG1002MG-100	male	4"	
	HL-FIG1002KW-100*	(male, female + wing nut)	4"	ment. Colour: blue/red.
	HL-FIG1002DW-100*	female	4"	Pressure: 10000 PSI (689 bar).
	HL-FIG1002MW-100*	male	4"	Material: AISI 4130 chromium mo-
	HL-FIG1002NG-100	wing nut	4"	lybdenum-plated steel.
	HL-FIG1002KG-125	(male, female + wing nut)	5"	Connection: NPT female thread. * - butt weld (wall thickness XXH).
	HL-FIG1002DG-125	female	5"	Seal: metal/metal (cone) + addition-
	HL-FIG1002MG-125	male	5"	al lip type seal (NBR).
	HL-FIG1002KW-125*	(male, female + wing nut)	5"	
	HL-FIG1002DW-125*	female	5"	
	HL-FIG1002MW-125*	male	5"	
	HL-FIG1002NG-125	wing nut	5"	
		Fig. 1003	1	
	HL-FIG1003KW-075	(male, female + wing nut)	3"	
	HL-FIG1003DW-075	female	3"	General purpose high pressure coupling. Widely used in cement tank trucks and high pressure equipment. Ensures tight sealing and allows for misalignment of up to 7° from the centre line.
	HL-FIG1003MW-075	male	3"	
	HL-FIG1003NG-075	wing nut	3"	
	HL-FIG1003KW-100	(male, female + wing nut)	4"	
TOTAL CONTRACTOR	HL-FIG1003DW-100	female	4"	
	HL-FIG1003MW-100	male	4"	Colour: green/black. Pressure: 10000 PSI (689 bar).
	HL-FIG1003NG-100	wing nut	4"	Material: AISI 4130 steel.
	HL-FIG1003KW-125	(male, female + wing nut)	5"	Connection: butt weld (wall thick-
	HL-FIG1003DW-125	female	5"	ness XXH).
	HL-FIG1003MW-125	male	5"	Seal: metal/metal (cone) + O-ring (NBR).
	HL-FIG1003NG-125	wing nut	5"	
		Fig. 1502	1	I
	HL-FIG1502KG-050	(male, female + wing nut)	2"	
	HL-FIG1502DG-050	female	2"	The most popular type of Hammer Lug coupling due to its rugged con-
	HL-FIG1502MG-050	male	2"	struction. Widely used in standard
	HL-FIG1502KW-050*	(male, female + wing nut)	2"	applications (to transfer air, water,
	HL-FIG1502DW-050*	female	2"	oil and gas) as well as in very spe-
	HL-FIG1502MW-050*	male	2"	cific ones such as choke/kill lines, cementing lines, fracturing applica-
	HL-FIG1502NG-050	wing nut	2"	tions, etc.
	HL-FIG1502KG-075	(male, female + wing nut)	3"	Colour: red/blue.
S I	HL-FIG1502DG-075	female	3"	Pressure: 15000 PSI (1034 bar).
	HL-FIG1502MG-075	male	3"	Material: AISI 4130 chromium mo- lybdenum-plated steel.
	HL-FIG1502KW-075*	(male, female + wing nut)	3"	Connection: NPT female thread.
	HL-FIG1502DW-075*	female	3"	* - butt weld (wall thickness XXH).
	HL-FIG1502MW-075*	male	3"	Seal: metal/metal (cone) + addition-
	HL-FIG1502NG-075	wing nut	3"	al lip type seal (NBR).



### HAMMER LUG system

#### table continuation:

picture	code	description	size	characteristics
	Fig. 1502			
	HL-FIG1502DI-050	female part with integral crimp ferrule	2"	This version of HAMMER LUG cou- pling allows to assemble a female or male part directly on a hydrau- lic hose R13, R15 type with a crimp ferrule.
	HL-FIG1502MI-050	male part with integral crimp ferrule	2"	This solution totally eliminates the risk that the coupling untwists so the safety of the hose operator is significantly improved (no threaded connection between a coupling and a hose fitting).

#### Swivel unions

Swivel union with two rows of bearings (LONG RADIUS - LR version equipped with three rows of bearings). Designed to transfer drilling fluid, water, cement, abrasives, etc. Widely used in applications associated with fracturing, cementing, flushing, choke and kill lines. Available in 1" to 3" sizes with NPT thread or HAMMER LUG connection (male or female). Version designed for use with hydrogen sulphide available on request. The seal not only seals the swivel union but also reduces friction of the bearings. Additionally, heat properties of the bearings are improved to ensure longer life service. Smooth internal surface of the union ensures minimal pressure drop. Material: AISI 4130 chromium molybdenum-plated steel.

code	size	description
HL-ZO-1502-S10-DM-LR-050	2"	LR version S10 type swivel union with HL 1502 type fitting (female/male)
HL-ZO-1502-S20-DM-LR-050	2"	LR version S20 type swivel union with HL 1502 type fitting (female/male)
HL-ZO-1502-S50-DM-LR-050	2"	LR version S50 type swivel union with HL 1502 type fitting (female/male)

S10 type	S20 type	S30 type	S40 type
3 swivels, 2 elbows	1 swivel	1 swivel, 1 elbow	1 swivel, 2 elbows
S50 type	S60 type	S70 type	S80 type
2 swivels, 2 elbows	2 swivels, 1 elbow	2 swivels, 3 elbows	3 swivels, 3 elbows



### HAMMER LUG system

#### **Pipe unions**

One-piece pipe unions (no welded parts) designed to transfer abrasive materials, drilling fluid, water, cement, etc. Widely used in fracturing, cementing, flushing, wireline services, choke and kill lines, etc. Available as elbows, tees, crosses in 1" to 3" sizes with NPT thread or HAMMER LUG connection (male or female). Version for hydrogen sulphide is also available.

Material: AISI 4130 chromium molybdenum-plated steel.

Working press.: 6000 PSI (414 bar) for HL fig. 602, 15000 PSI (1034 bar) for HL fig.1502.

code	size	description
HL-ZK90-1502-DD-050	2"	90° elbow with fig. 1502 (2 x female)
HL-ZK90-1502-DM-050	2"	90° elbow with fig. 1502 (female, male)
HL-ZK90-1502-MM-050	2"	90° elbow with fig. 1502 (2 x male)
HL-ZK90-1502-MM-075	3"	90° elbow with fig. 1502 (2 x male)
HL-T-1502-DDD-050	2"	Tee with fig. 1502 (3 x female)
HL-T-1502-MMM-050	2"	Tee with fig. 1502 (3 x male)
HL-T-1502-MDM-050	2"	Tee with fig. 1502 (2 x male, 1 x female)
HL-ZP-0602-MD-075/0600	3"	Pup joint with fig. 602 (male, female) 3", Lc = 600 mm (2ft)
HL-ZP-0602-MD-075/1200	3"	Pup joint with fig. 602 (male, female) 3", Lc = 1200 mm (4ft)
HL-ZP-0602-MD-075/2400	3"	Pup joint with fig. 602 (male, female) 3", Lc = 2400 mm (8ft)
HL-ZP-1502-MD-050/0300	2"	Pup joint with fig. 1502 (male, female) 2", Lc = 300 mm (1ft)
HL-ZP-1502-MD-050/1200	2"	Pup joint with fig.1502 (male, female) 2", Lc = 1200 mm (4ft)
HL-ZP-1502-MD-050/2400	2"	Pup joint with fig.1502 (male, female) 2", Lc = 2400 mm (8ft)
HL-ZP-1502-MD-075/0600	3"	Pup joint with fig. 1502 (male, female) 3", Lc = 600 mm (2ft)
HL-ZP-1502-MD-075/1200	3"	Pup joint with fig. 1502 (male, female) 3", Lc = 1200 mm (4ft)
HL-ZP-1502-MD-075/2400	3"	Pup joint with fig. 1502 (male, female) 3", Lc = 2400 mm (8ft)

ZK 90 type	T type	ZP type	C type
90° elbow	pipe tee	pup joint	pipe cross

Valves

picture	code	size	description
	HL-Z-1502-MD-050	2"	Valve designed for drilling fluid, water, cement, etc. Used for fracturing, cementing, and other high pres- sure applications. Material: AISI 4130. Working press.: 15000 PSI (1034 bar). Connections: HL fig.1502 (male x female).

