

STANDARD

LMC's TW couplings are asymmetric couplings used for the transport of liquids, solids and gases, with the exception of liquefied gas and steam. The locking lever fitted to the female (MK) coupling engages in the rim of the male (VK) coupling. It is turned until both halves are tightly compressed. The locking lever is then pushed downwards and is used to prevent loosening which can lead to disconnection.

OPERATION

The female coupling (type MK) is connected to the male coupling (type VK) of the same diameter by pushing one into the other. The locking lever fitted to the female (MK) coupling engages in the rim of the male (VK) coupling. The locking lever is turned until both couplings are compressed tightly. The locking lever is then pushed downwards to seal the MK-VK joint. The locking lever prevents the connection from becoming loose as a result of vibration.

N.B.: Male and female dust caps (types VB and MB) are pressure-resistant plugs, with the exception of polypropylene dust plugs. A locking device must be used for all connected and pressurised hose assemblies.

FEATURES



1. Designed in full compliance with EN 14420-6 / DIN 28450
2. Brass TW coupling is forged
3. Right material composition
4. Mechanical resistant lever
5. Couplings are tested using the latest gauges required by the EN 14420-6 standard

APPLICATION

For the transport of liquids, solids and gases, with the exception of liquefied gas and steam

WORKING PRESSURE

25 bar / 362 psi

TEMPERATURE

-30°C / -22°F up to 120°C / 248°F

Hose, coupling, assembly method and seal must be chosen in relation with the desired application and temperature range.

MATERIAL

- Coupling
 - Stainless steel AISI 316 / 1.4408 by investment casting
 - Brass CW1617N by forging
 - Aluminium by forging
 - Polypropylene



TUBORRACHIA
ACESSÓRIOS E EQUIPAMENTOS INDUSTRIAIS, LDA.

Contribuinte N.º 502 547 294
Sociedade por Quotas • Capital Social 49.880 Euros
Registado na C. R. C. de Loures sob o N.º 08511

■ Seal

COUPLING	MATERIAL COUPLING	TYPE SEAL	STANDARD SEAL
Type MK: female part, female threaded with locking lever	Brass	Profiled seal* Thread seal	NBR-black PU- brown
Type VK: male part, female threaded	Brass	Thread seal	PU- brown
Type MB: dust cap	Brass	Square seal	NBR-black
Type MK: female part, female threaded with locking lever	Stainless steel	Profiled seal* Thread seal	CSM-green PTFE-white
Type VK: male part, female threaded	Stainless steel	Thread seal	PTFE-white
Type MB: dust cap	Stainless steel	Square seal	CSM-green
Type MB: dust cap	Aluminium	Square seal	NBR-black

* Profiled seals only valid for the dimensions ND 50 and ND 80.
For the dimension ND 100 an o-ring seal is used.

ASSEMBLY

RK and RKP safety clamps in compliance with EN 14420-3 / DIN 2817
 FLEXOLINE[®] safety clamps
 Band clamps
 Worm drive clamps

THREADS

Female thread EN ISO 228-1, BSP

TESTING

TW couplings at LMC-Couplings are regularly tested. Because the TW locking ring is mostly affected by falling, extra testing is done to ensure our customers a high quality product. Test levels:

- Mechanical resistance
- Material composition
- Manufacturing process
- Dimensions
- Design

- Mechanical resistance

The locking ring of the TW coupling is one of the components most likely to be affected by impact. Distortion of the TW locking ring is tested using pressures in excess of the accepted upper pressure limit. Under normal circumstances, the locking ring is prevented from distorting by its crown. The distortion test checks the mechanical strength of the locking ring.



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TYPE MK: FEMALE PART - FEMALE THREADED WITH LOCKING LEVER

ND	Inch	Thread EN ISO 228-1	Thread seal	Profiled seal	Material	Weight/pc Kg	Reference
50	2"	G 2	PU	NBR	Brass	0.74	MK050
80	3"	G 3	PU	NBR	Brass	1.46	MK080
100	4"	G 4	PU	NBR	Brass	2.71	MK100
50	2"	G 2	PTFE	CSM	Stainless steel	0.63	MKRR050
80	3"	G 3	PTFE	CSM	Stainless steel	1.30	MKRR080
100	4"	G 4	PTFE	CSM	Stainless steel	2.16	MKRR100

Stainless steel: AISI 316 - 1.4408
 Female thread: EN ISO 228-1, BSP
 For the dimension ND 100 an o-ring seal is used.



TYPE VK: MALE PART - FEMALE THREADED WITH THREAD SEAL

ND	Inch	Thread EN ISO 228-1	Thread seal	Material	Weight/pc Kg	Reference
50	2"	G 2	PU	Brass	0.30	VK050
80	3"	G 3	PU	Brass	0.78	VK080
100	4"	G 4	PU	Brass	1.22	VK100
50	2"	G 2	PTFE	Stainless steel	0.32	VKR050
80	3"	G 3	PTFE	Stainless steel	0.74	VKR080
100	4"	G 4	PTFE	Stainless steel	1.25	VKR100

Stainless steel: AISI 316 - 1.4408
 Female thread: EN ISO 228-1, BSP



TYPE MKH: LOCKING RING WITH LEVER

ND	Inch	Material	Weight/pc Kg	Reference
50	2"	Brass	0.51	MKH050
80	3"	Brass	0.93	MKH080
50	2"	Stainless steel	0.43	MKHR050
80	3"	Stainless steel	0.91	MKHR080

Stainless steel: AISI 316 - 1.4408
 The locking ring with lever in the dimension ND 100 is not separately available.



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TYPE MKV: CROWN PART FEMALE THREADED

ND	Inch	Thread EN ISO 228-1	Thread seal	Profiled seal	Material	Weight/pc Kg	Reference
50	2"	G 2	PU	NBR	Brass	0.23	MKV050
80	3"	G 3	PU	NBR	Brass	0.55	MKV080
50	2"	G 2	PTFE	CSM	Stainless steel	0.20	MKVR050
80	3"	G 3	PTFE	CSM	Stainless steel	0.49	MKVR080



Stainless steel: AISI 316 - 1.4408
 Female thread: EN ISO 228-1, BSP
 The dimension ND 100 is not separately available.

TYPE MB: DUST CAP

ND	Inch	Seal	Material	Weight/pc Kg	Reference
50	2"	NBR	Brass	0.37	MB050
80	3"	NBR	Brass	0.88	MB080
50	2"	CSM	Stainless steel	0.35	MBR050
80	3"	CSM	Stainless steel	0.81	MBR080
100	4"	CSM	Stainless steel	1.21	MBR100
50	2"	NBR	Aluminium	0.19	MBA050
80	3"	NBR	Aluminium	0.32	MBA080
100	4"	NBR	Aluminium	0.47	MBA100



Stainless steel AISI 316 - 1.4408
 Chain not included
 ND 100 is an o-ring seal

TYPE VB: DUST PLUG

ND	Inch	Material	Weight/pc Kg	Reference
50	2"	Brass	0.36	VB050
80	3"	Brass	0.89	VB080
50	2"	Stainless steel	0.30	VBR050
80	3"	Stainless steel	0.71	VBR080
100	4"	Stainless steel	0.99	VBR100
50	2"	Aluminium	0.10	VBA050
80	3"	Aluminium	0.30	VBA080
100	4"	Aluminium	0.48	VBA100
50	2"	Polypropylene	0.10	VP050
80	3"	Polypropylene	0.30	VP080
100	4"	Polypropylene	0.48	VP100



Stainless steel AISI 316 - 1.4408
 Chain not included
 Polypropylene dust plugs are not pressure resistant



TYPE MKST: FEMALE PART WITH LOCKING LEVER AND SMOOTH HOSE SHANK

ND	Inch	Material	For hose mm	Weight/pc Kg	Reference
50	2"	Brass	50	1.20	MKST050
80	3"	Brass	75	2.37	MKST080
50	2"	Stainless steel	50	1.09	MKSTR050
80	3"	Stainless steel	75	2.21	MKSTR080



The female part, type MKST is a monoblock version
 Standard hose shank EN 14420-2 / DIN 2817
 Assembly: RK and RKP safety clamps EN 14420-3 / DIN 2817
 FLEXOLINE® safety clamps
 Stainless steel AISI 316 - 1.4408

TYPE VKST: MALE PART WITH SMOOTH HOSE SHANK

ND	Inch	Material	For hose mm	Weight/pc Kg	Reference
50	2"	Brass	50	0.76	VKST050
80	3"	Brass	75	1.69	VKST080
50	2"	Stainless steel	50	0.78	VKSTR050
80	3"	Stainless steel	75	1.65	VKSTR080



The female part, type VKST is a monoblock version
 Standard hose shank EN 14420-2 / DIN 2817
 Assembly: RK and RKP safety clamps EN 14420-3 / DIN 2817
 FLEXOLINE® safety clamps
 Stainless steel AISI 316 - 1.4408

ACCESSORIES

CHAIN WITH S-HOOK

Length mm	Material	Weight/pc Kg	Reference
200	Stainless steel	0.015	KETR200



Stainless steel AISI 304 - 1.4301



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PROFILED CROWN SEAL

ND	Inch	Material	Colour	Ø OD +/- 0.2 mm	Ø ID +/- 0.3 mm	Height +/- 0.2 mm	Weight Kg	Reference
50	2"	NBR	Black	62.5	49.0	10.0	0.01	GSDB050
80	3"	NBR	Black	92.0	76.0	11.6	0.03	GSDB080
50	2"	CSM	Green	62.5	49.0	10.0	0.01	GSDH050
80	3"	CSM	Green	92.0	76.0	11.6	0.03	GSDH080
50	2"	FPM	Black	62.5	49.0	10.0	0.01	GSDV050
80	3"	FPM	Black	92.0	76.0	11.6	0.03	GSDV080



SQUARE SEAL FOR FEMALE CAP TYPE MB

ND	Inch	Material	Colour	Ø OD +/- 0.6 mm	Ø ID +/- 0.3 mm	Height +/- 0.2 mm	Weight Kg	Reference
50	2"	NBR	Black	61.5	49.0	5.0	0.01	TWFB050
80	3"	NBR	Black	92.0	77.0	6.0	0.02	TWFB080
50	2"	CSM	Green	61.5	49.0	5.0	0.01	TWFH050
80	3"	CSM	Green	92.0	77.0	6.0	0.02	TWFH080
50	2"	PTFE	White	61.5	49.0	5.0	0.01	TWFP050
80	3"	PTFE	White	92.0	77.0	6.0	0.02	TWFP080
50	2"	FPM	Black	61.5	49.0	5.0	0.01	TWFO050
80	3"	FPM	Black	92.0	77.0	6.0	0.02	TWFO080



O-RING FOR FEMALE CAP TYPE MB AND CROWN PART TYPE MKV

ND	Inch	Material	Colour	Ø OD +/- 0.8 mm	Ø ID +/- 0.8 mm	Height +/- 0.3 mm	Weight Kg	Reference
100	4"	NBR	Black	113.0	99.0	7.0	0.02	TWFB100
100	4"	CSM	Green	113.0	99.0	7.0	0.02	TWFH100
100	4"	FPM	Black	113.0	99.0	7.0	0.02	TWFO100



THREAD SEAL

ND	Inch	Material	Colour	Ø OD mm	Ø ID mm	Height mm	Weight Kg	Reference
50	2"	PTFE	White	60	49	2	0.004	X2RP050
80	3"	PTFE	White	88	77	3	0.010	X2RP075
100	4"	PTFE	White	114	100	3	0.015	X2RP100
50	2"	PU	Brown	60	49	2	0.002	X2RV050
80	3"	PU	Brown	88	77	3	0.005	X2RV075
100	4"	PU	Brown	114	100	3	0.008	X2RV100



Thread seal dimensions in compliance with EN 1.4420-5
 Seal colours are subject to change without prior notice



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