



QUICK COUPLINGS

DHI

Q.SAFE DHI

INTRODUCTION

MQS-DHI “DIRECT HOSE INTEGRATION”

An innovative system to enable direct assembly of the quick-release coupling to the flexible hose, and therefore avoiding intermediate connection elements.

Some of the benefits of this solution are:

- Reduced risk of oil leakage
- Elimination of unscrewing problems in the field
- Reduction in the number of assembly elements leading to reduced assembly cost, minimised risk of assembly operation mistakes and greater safety in severe working conditions, as well as easier maintenance and replacement operations

Design solutions are available for most common series ISO A, ISO B, Push-Pull & Flat-Face

DHI quick release coupling maintenance is possible without the need to replace the flexible hose.

Q.SAFE DHI INDEX

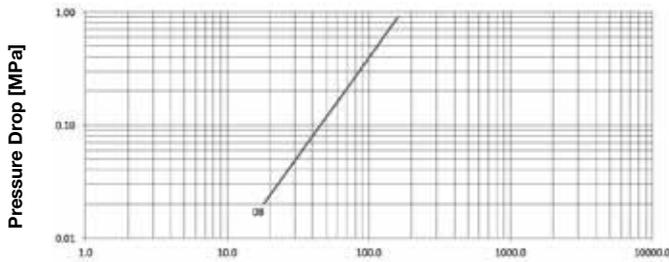
QUICK COUPLINGS SERIES	FEMALE COUPLING	MALE COUPLING	SHUT-OFF SYSTEM	SPECIFICATIONS	CONNECTION	SIZE										SECTION	PAGE
						1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"		
MQS-DHI ISO A	Q308	Q302	Poppet Valve	ISO 7241 SERIES A	Locking Balls											Q29	1
MQS-DHI ISO A push-pull	Q313	-	Poppet Valve	ISO 7421 SERIES A	Locking Balls												5
MQS-DHI ISO B	Q324	Q321	Poppet Valve	ISO 7241 SERIES B	Locking Balls												9
MQS-DHI Flat-face	Q341	Q339	Flat Valve	ISO 16028 e HTMA	Locking Balls												13



SIZE	WORKING PRESSURE (Dynamic)	RATED FLOW at 0.2 MPa of pressure drop	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE	CONNECTION/ DISCONNECTION UNDER PRESSURE

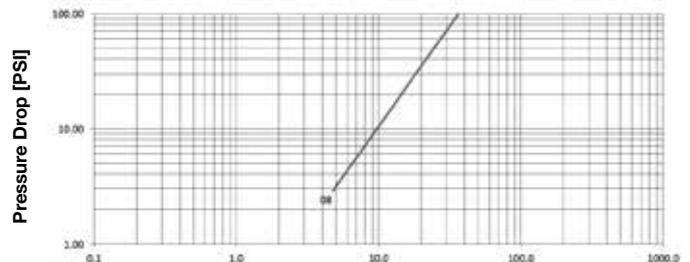
mm	inch	dash	MPa	PSI	l/min	US GPM	N	lb.	cc.	cubic inch	Male		Female		M & F		Not allowed
											MPa	PSI	MPa	PSI	MPa	PSI	
12.5	1/2	08	30	4350	75	19.8	80	18.0	1.8	0.110	125	18125	150	21750	150	21750	Not allowed

Pressure Drop



Flow Rate [l/min]

Pressure Drop



Flow Rate [US gallons/min]

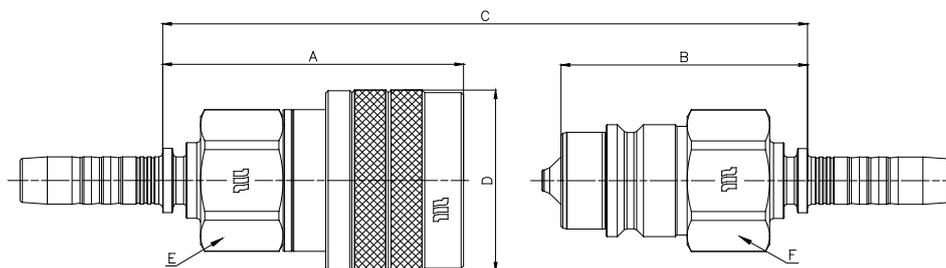
Product description:

- Dimensional and performance requirements conform to ISO 7241-1 series A, ensuring worldwide interchangeability
- Connect by pulling back the sleeve (with female ISO A)
- Positive connection by the locking ball system
- Shut-off poppet valve provides an effective hydraulic sealing
- When female bulkhead is mounted on the outside sleeve (PUSH-PULL), the coupling ensures breakaway features according to ISO 5675

Material	Female coupling in steel with some hardened areas, in correspondence to the most stressed points. Male couplings in high grade carbon steel. Carbonitrided valve and sleeve, springs in C98 steel, seals in NBR (other materials available on request) and back-up ring in PTFE
Working Temperature	-22°F up to +230°F (-30°C up to +110°C) For other temperatures, the coupling may be assembled with the specific seals
Safety Factor	4:1 for dynamic pressures
Impulse Pressures	100,000 cycles at 133% of the rated one (freq. 1Hz)
Test Specifications	ISO 7241-2



Quick release couplings DHI maintenance without flexible hose replacement



Q30811MF1A

FEMALE ISO-A COUPLING
MULTIFIT INSERT

Q30211MF1A

MALE ISO-A COUPLING
MULTIFIT INSERT

SIZE			PART NUMBER		THREAD	DIMENSIONS mm					
DN	inch	Size	Female coupling	Male coupling		A	B	C	D	E	F
12.5	1/2"	-08	Q30811MF1A-08-04	Q30211MF1A-08-04	1/4" MF2000	62.5	51.3	A+B-21,8	ø38	27	27
			Q30811MF1A-08-05	Q30211MF1A-08-05	5/16" MF2000	62	51	A+B-21,8	ø38	27	27
			Q30811MF1A-08-06	Q30211MF1A-08-06	3/8" MF2000	62	50.8	A+B-21,8	ø38	27	27
			Q30811MF1A-08-08	Q30211MF1A-08-08	1/2" MF2000	60.4	49.2	A+B-21,8	ø38	27	27

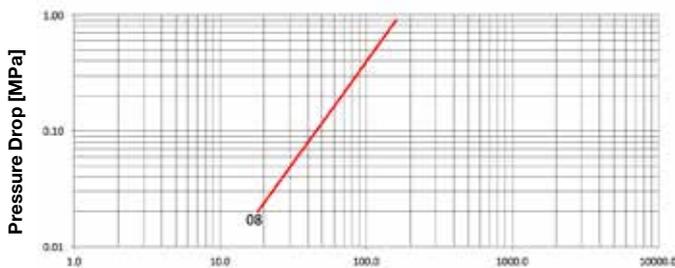
PUSH-PULL - TERMINATION ENDS



SIZE	WORKING PRESSURE (Dynamic)	RATED FLOW at 0.2 MPa of pressure drop	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE	CONNECTION/ DISCONNECTION UNDER PRESSURE

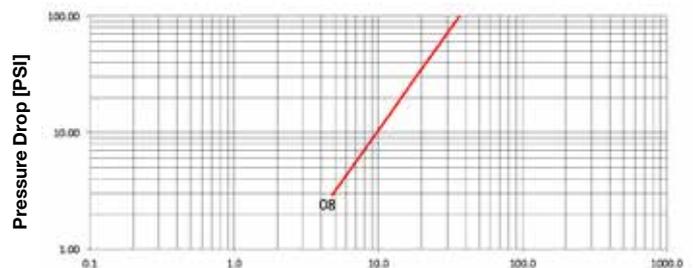
mm	inch	dash	MPa	PSI	l/min	US GPM	N	lb.	cc.	cubic inch	Female		M & F		Not allowed
											MPa	PSI	MPa	PSI	
12.5	½	08	30	4350	68	18.0	110	244	2	0.122	140	20300	140	20300	

Pressure Drop



Flow Rate [l/min]

Pressure Drop



Flow Rate [US gallons/min]

Product description:

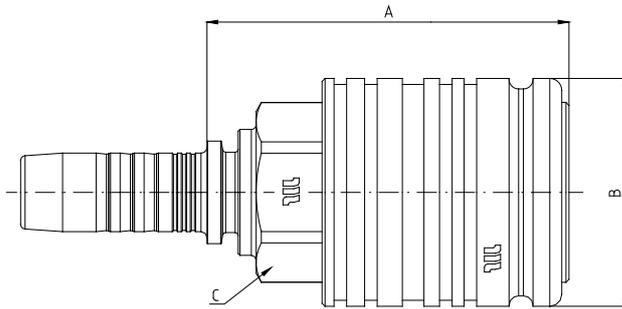
- Female coupling designed for agriculture applications, connectable with ISO 7241-1 series A male couplings
- PUSH-PULL connection and disconnection system, in case of bulkhead mounting on the external sleeve
- Break-away function according to ISO 5675 (in case of bulkhead mounting on the external sleeve)
- Positive connection by latching balls system
- Shut-off by poppet valve
- High resistant materials
- Dimensions and performances according to ISO 7241-1 series A

Material	Female couplings in steel with some hardened areas, in correspondence to the most stressed points. Carbonitrided valve and sleeve, springs in C98 steel, latching balls in high resistance 100 C6 steel, seals in NBR (other materials on request) and back-up ring in PTFE
Working Temperature	-22°F up to +230°F (-30°C up to +110°C) For other temperatures, the coupling is assembled with specific seals
Safety Factor	4:1 for dynamic pressures
Impulse Pressures	100,000 cycles at 133% of the rated one (freq. 1Hz)
Test Specifications	ISO 7241-2

Q31311MF1A

FEMALE PUSH PULL
COUPLING

MULTIFIT INSERT



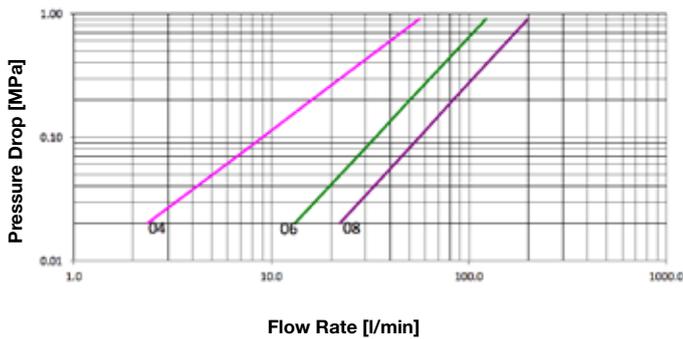
SIZE			PART NUMBER	THREAD	DIMENSIONS mm					
DN	inch	Size	Female coupling		A	B	C	D	E	F
12.5	1/2"	-08	Q31311MF1A-08-06	3/8" MF2000	62	ø38	27			
			Q31311MF1A-08-08	1/2" MF2000	60.4	ø38	27			



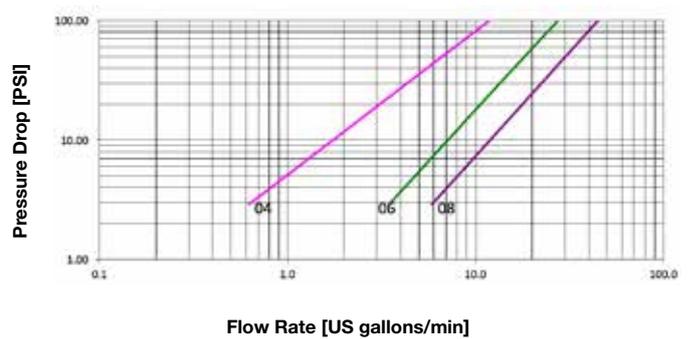
SIZE	WORKING PRESSURE (Dynamic)	RATED FLOW at 0.2 MPa of pressure drop	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE	CONNECTION/ DISCONNECTION UNDER PRESSURE

mm	inch	dash	MPa	PSI	l/min	US GPM	N	lb.	cc.	cubic inch	Male		Female		M & F		
											MPa	PSI	MPa	PSI	MPa	PSI	
6.3	¼	04	40	5800	16	4.3	40	9.0	0.8	0.049	180	26100	190	27550	165	23925	Not allowed
10	¾	06	35	5075	51	13.5	40	9.0	1.5	0.092	145	21025	160	23200	160	23200	Not allowed
12.5	½	08	35	5075	84	22.0	70	15.7	2.5	0.153	145	21025	145	21025	160	23200	Not allowed

Pressure Drop



Pressure Drop



Product description:

- Reference series for all industrial applications
- Simple connection and disconnection by pulling back the sleeve
- Positive, quick connection of the male into the female by latching the ball system
- Shut-off by poppet valve
- High resistant materials
- Interchangeable according to ISO 7241-1 series B

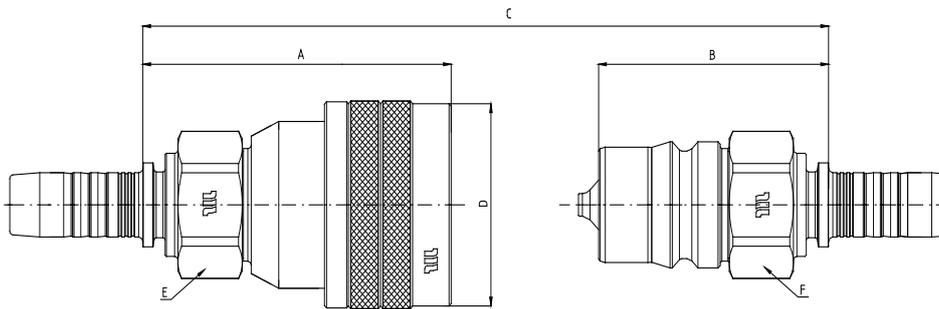
Material	Female couplings in steel, with some hardened areas, in correspondence to the most stressed points. Male couplings in high grade carbon steel hardened. Springs in C98 steel, seals in NBR (other materials on request) and back-up ring in PTFE
Working Temperature	-22°F up to +230°F (-30°C up to +110°C) For other temperatures, the quick coupling is assembled with specific seals
Safety Factor	4:1 for dynamic pressures
Impulse Pressures	Withstands 100,000 cycles of impulse pressure at 133% of the rated one (freq. 1Hz)
Test Specifications	ISO 7241-2

Q32411MF1A

Q32111MF1A

**FEMALE & MALE ISO B
COUPLINGS**

MULTIFIT INSERT



SIZE			PART NUMBER		THREAD	DIMENSIONS mm					
DN	inch	Size	Female coupling	Male coupling		A	B	C	D	E	F
6.3	1/4"	-04	Q32411MF1A-04-06	Q32111MF1A-04-06	3/8" multifit	56	45.1	A+B-21,2	ø28	19	19
10	3/8"	-06	Q32411MF1A-06-06	Q32111MF1A-06-06	3/8" multifit	65.2	51.3	A+B-24,4	ø35	22	22
12.5	1/2"	-08	Q32411MF1A-08-08	Q32111MF1A-08-08	1/2" multifit	72	53.7	A+B-27,2	ø42	27	27

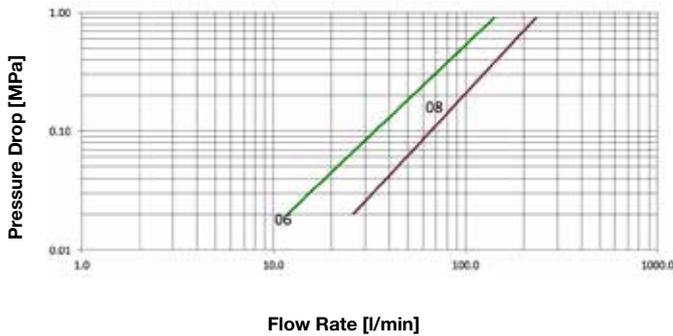
FLAT FACE - TERMINATION ENDS



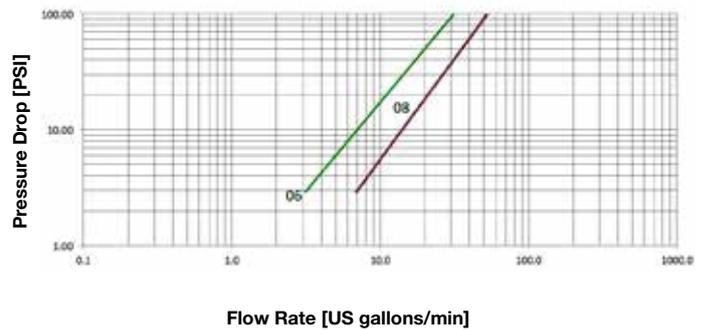
	MPa		FLOW RATE	N				
SIZE	WORKING PRESSURE - CONNECTED (Dynamic)	WORKING PRESSURE - DISCONNECTED (Dynamic)	RATED FLOW at 0.2 MPa of pressure drop	CONNECTION EFFORT	OIL SPILLAGE Connection/ Disconnection	MINIMUM BURST PRESSURE		CONNECTION/ DISCONNECTION UNDER PRESSURE

mm	inch	dash	MPa		PSI		l/ min	US GPM	N	lb.	cc.	cubic inch	Male		Female		M & F		
			MPa	PSI	MPa	PSI							MPa	PSI	MPa	PSI			
10	3/8	06	35	5075	25	3625	53	14.0	130	29.2	0.007	0.0004	140	20300	125	18125	145	21025	Not allowed
12.5	1/2	08	35	5075	25	3625	98	25.9	140	31.5	0.008	0.0005	135	19575	115	16675	145	21025	Not allowed

Pressure Drop



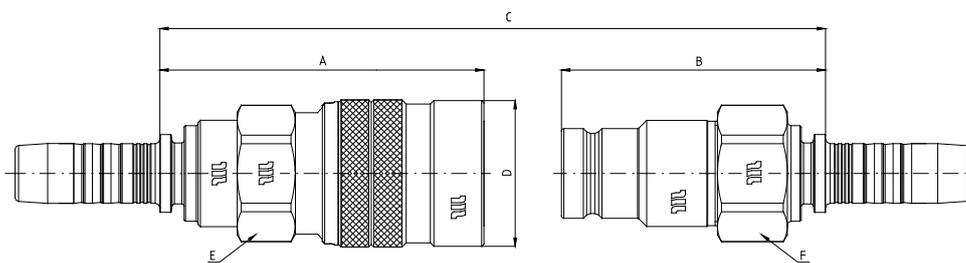
Pressure Drop



Product description:

- Connection is made by pushing the male coupling and disconnection by pulling back the sleeve of the female
- Flat mating surfaces easily wiped clean to prevent contamination and spillage during connection/ disconnection
- Stainless steel springs in the female coupling
- Interchangeability according to ISO 16028 and HTMA standards

Material	Female and male coupling in steel, with some stressed tempered or carbonitrided areas. Springs in AISI and C98 steel, seals in polyurethane NBR. Other materials (MTON, EPDM or any others) on request.
Working Temperature	-22°F up to +230°F (-30°C up to +110°C) For other temperatures, the coupling may be assembled with the specific seals
Safety Factor	4:1 for dynamic pressures
Impulse Pressures	100,000 cycles at 133% of the rated one (freq. 1Hz) in disconnected conditions. 1,000,000 cycles at 133% of the rated one (freq. 1Hz) in connected conditions.
Test Specifications	ISO 16028:1997aMD.1.2006 (E) and ISO 7241-2



Q34111MF1A

FEMALE FLAT FACE
COUPLING

MULTIFIT INSERT

Q33911MF1A

MALE FLAT FACE COUPLING

MULTIFIT INSERT

SIZE			PART NUMBER		THREAD	DIMENSIONS mm					
DN	inch	Size	Female coupling	Male coupling		A	B	C	D	E	F
10	3/8"	-06	Q34111MF1A-06-06	Q33911MF1A-06-06	3/8" MF2000	69.7	58.3	A+B-15,9	ø32	27	27
			Q34111MF1A-06-08	Q33911MF1A-06-08	1/2" MF2000	69.6	56.7	A+B-15,9	ø32	27	27
12.5	1/2"	-08	Q34111MF1A-08-08	Q33911MF1A-08-08	1/2" MF2000	78.9	66.7	A+B-17,1	ø38	34	34
			Q34111MF1A-08-12	Q33911MF1A-08-12	3/4" MF2000	75.8	65.1	A+B-17,1	ø38	34	34

