

# Q.Safe MQS-SH

## Screw very high pressure



**New!**



## MQS-SH Screw very high pressure

### *Summary*

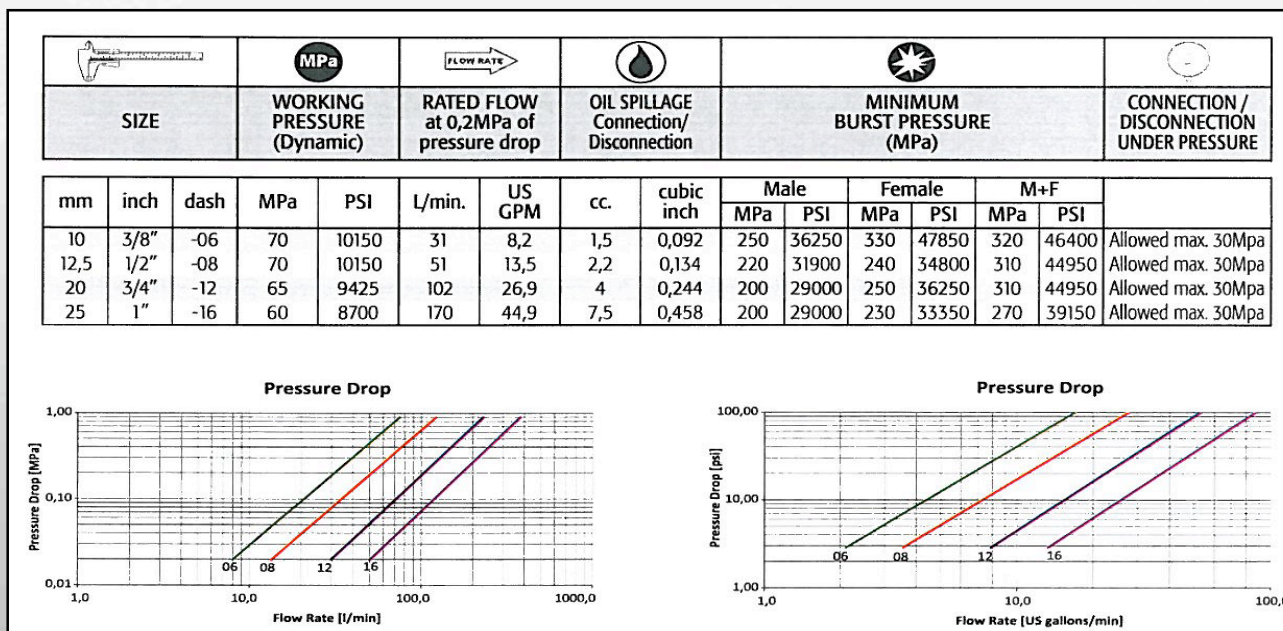
- Feature and Technical information
- Product Structure with PLUS & BENEFIT
- Main Applications
- Benchmarking



## MQS-SH Screw very high pressure

### Features and Technical information

- Screw-on connection/disconnection system
- Connectable/disconnectable under pressure
- Internal components reinforced, made in steel
- Hardened valve bodies
- Three-part poppet valve with a moulded shaped seal
- Mechanical backstop to prevent partial enclosures of valves due to peaks and back-flow
- GREAT resistance to back-flow, flow impulse, flow peaks, pressure impulse, pressure peaks, vibration (heavy duty applications)
- Interchangeable with other products and widely used in the market
- Accessories (plugs and caps) and spare parts kits available
- 1/4" and 1-1/4" size, available at the end of 2010
- Wide range of termination end



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### Product Structure with PLUS & BENEFIT

#### BENEFIT

#### Plus

#### INCREASE SERVICE LIVE

Increased thickness of back-up ring

Easy connection by tools in case of connection/disconnection under pressure and to applying tightening torque

Sleeve with Hexagon profile

#### REDUCED RISK OF SEAL WASHOUT IN CASE OF:

- High flow rate
- Connection/disconnection under pressure

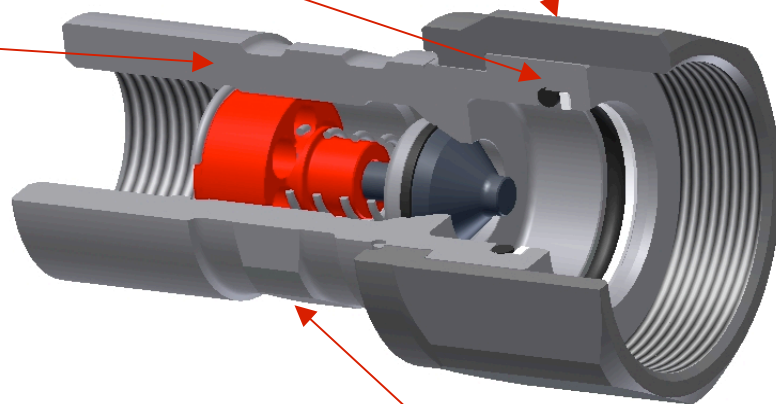
Three-part poppet valve with a moulded shaped seal

Female and Male body in high resistance steel.  
Hardened poppet valve

#### INCREASE PERFORMANCES

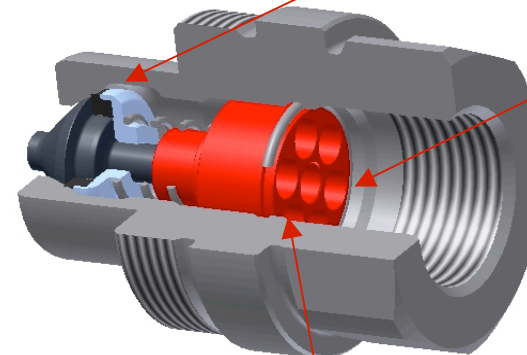
Cr3+ surface coating for an excellent resistance to corrosion, salt spray resistance: 240 hours for white corrosion and 400 for red corrosion no (not assembly componets)

#### INCREASE SERVICE LIVE



Position of hexagon zone(not over the thread), to guarantee constant cross section area.

IMPROVE RESISTANCE OF THREAD AREA



Internal components made in steel

Guarantee:  
-Connection/disconnection under pressure  
- High resistance to Back-flow, flow peaks and impulses

Internal components streamlined in shape

REDUCE PRESSURE DROP

**Q.Safe**



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### *Main Applications*

- Drilling machines
- Hydraulic hammers
- Demolition machine
- Crushers
- Hydraulic GRAB



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### Benchmarking

FAMILY	SIZE	WORKING PRESSURE (Dynamic)			BURST PRESSURE		IMPULSE PRESSURES (500.000 cycles at 120% of the rated ones, freq. 1)			RATED FLOW at 0,2 MPa of pressure dr	OIL SPILLAGE	WORKING TEMPERATURE (NBR SEALS)
		MALE (MPa)	FEMALE (MPa)	M+F (MPa)	M+F (MPa)	SAFETY FACTOR 1:4	MALE (MPa)	FEMALE (MPa)	M+F (MPa)	(L/min.)	(cc.)	(°C)
M QS-SH	3/8"	70	70	70	340	YES	OK	OK	OK	31	1,5	-30° +110°
COM PETITOR	3/8"	37,5	37,5	75	280	NO	reduce W.P. of 0.5	reduce W.P. of 0.5	damage	24,1	1,9	-20° +100°
M QS-SH	1/2"	70	70	70	330	YES	OK	OK	OK	50,7	2,2	-30° +110°
COM PETITOR	1/2"	37,5	37,5	75	220	NO	reduce W.P. of 0.5	reduce W.P. of 0.5	damage	38,2	2,8	-20° +100°
M QS-SH	3/4"	65	65	65	340	YES	OK	OK	OK	102,4	4	-30° +110°
COM PETITOR	3/4"	32,5	32,5	65	210	NO	reduce W.P. of 0.5	reduce W.P. of 0.5	damage	76,4	5,8	-20° +100°
M QS-SH	1"	60	60	60	290	YES	OK	OK	OK	169,6	7,5	-30° +110°
COM PETITOR	1"	22,5	22,5	45	220	YES	reduce W.P. of 0.5	reduce W.P. of 0.5	damage	120,3	10,9	-20° +100°
COMMENTS		Competitor declare: For dynamic pressure (impulses) when disconnect apply a multiplier of 0.5			3 sizes without safety factor 1:4 . Working pressure declare is not correct.		Competitor damage: 3/8"--> after 124.000 cycles (sleeve damage); 1/2"--> after 302.000 cycles (o-ring & back-up ring extruded); 3/4"--> after 25.400 cycles (sleeve damage); 1"--> after 17.000 cycles (sleeve damage).			Thanks to Internal components streamlined in shape and design of poppet valve, on MQS-SH the rated flow is higher than competitors, this generates considerable benefits in the handling of actuators.	Oil loss during connection/dis connection is lower on Manuli product	