



CHARACTERISTICS

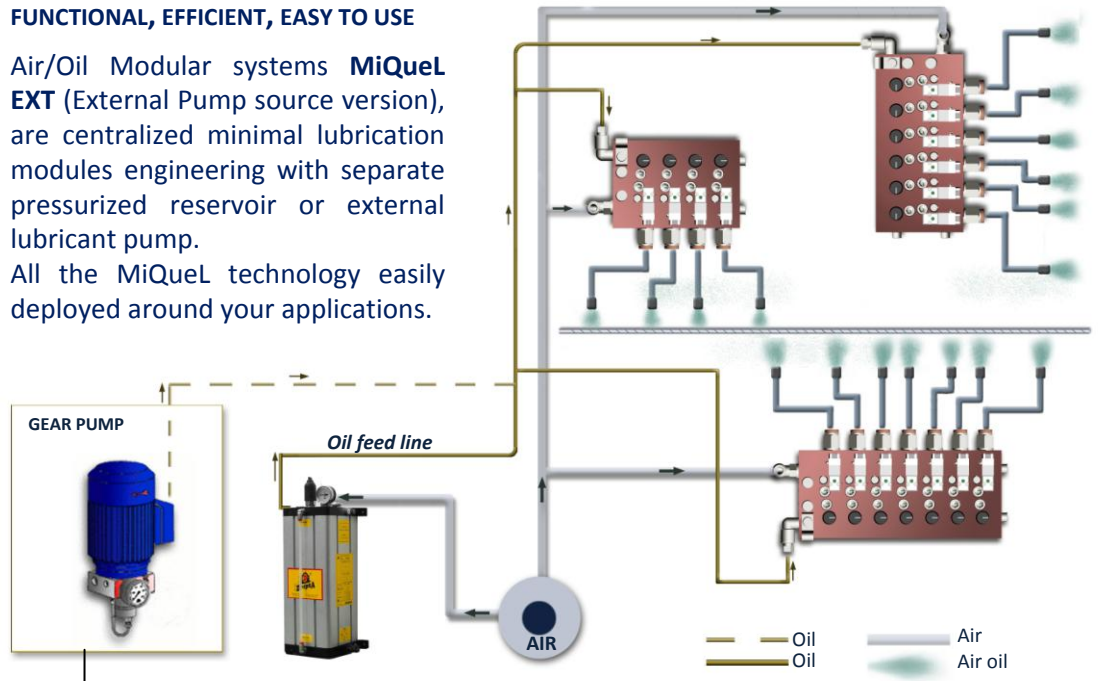
- SEPARATE PRESSURIZED TANK
- SEPARATE AIR OIL SUPPLY
- CONSTANT FLOW RATE INDEPENDENTLY BY THE INLET AND OUTPUT PRESSURE CHANGES
- INDEPENDENT SOLENOID CONTROL
- MONO-TUBE OR COAX POSSIBLE WITH STANDARD PRODUCT
- AIR AND OIL DELIVERY REGULATION FOR EACH SINGLE ELEMENT

EASILY ENGINEER DISTRIBUTED AIR-OIL MQL SYSTEMS WITH MIQUEL-EXT MAINTAINING CONTINUOUS AND PERFECT AIR/OIL LUBRICATION

FUNCTIONAL, EFFICIENT, EASY TO USE

Air/Oil Modular systems **MiQueL EXT** (External Pump source version), are centralized minimal lubrication modules engineering with separate pressurized reservoir or external lubricant pump.

All the MiQueL technology easily deployed around your applications.



This pump can power multiple MiQueL modules, installed in remote areas from a single source.

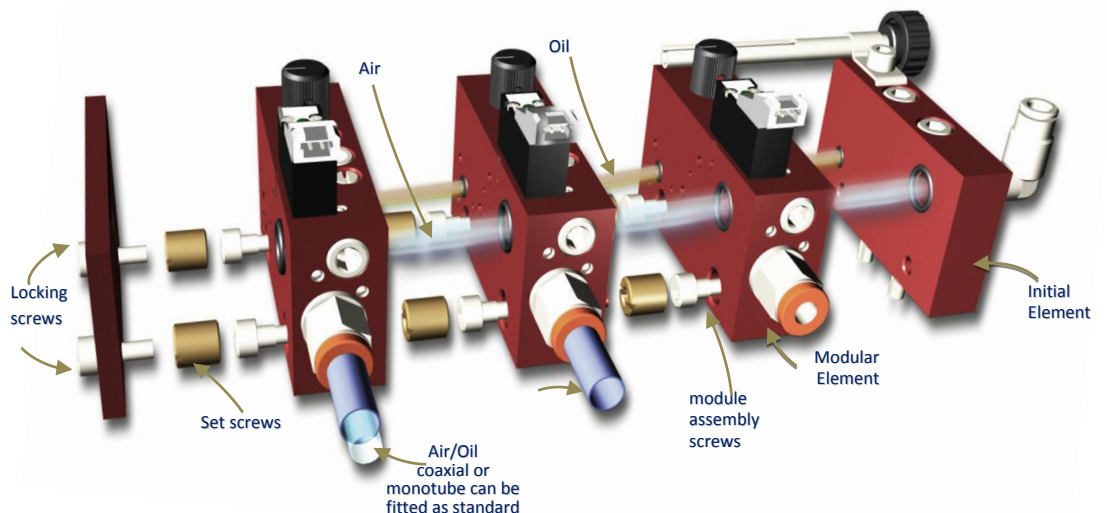
Install MiQueL modules in more remote area of a machine and operate them remotely.

MiQueL EXT, air and oil is fed separately to the modules.

Oil pressure must be higher than the air pressure. The PRO versions will automatically balance oil pressure depending on lubrication point back pressure.

APPLICATIONS

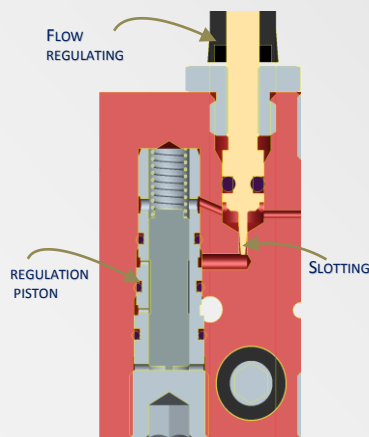
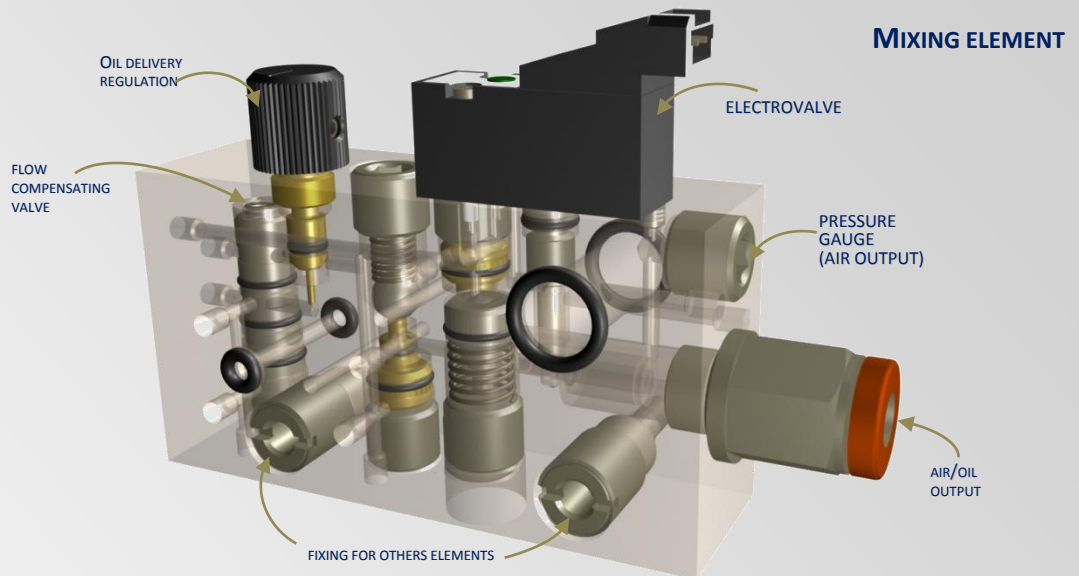
- MACHINE TOOLS
- MACHINE FOR SHEET METAL CUT AND FOLD
- STEEL MILLS



BENEFITS

- EASE TO INSTALL ON THE MACHINE
- REDUCING TOOL WEAR
- BETTER FINISH OF THE WORK PIECE
- FINISHED PIECE WITHOUT LUBRICANT RESIDUE
- NO DRIPPING FROM NOZZLES AFTER SHUTDOWN
- HIGH SPRAY DISTANCES (UNTIL 300 MM)
- INCREASED SAFETY AND ENVIRONMENTAL HYGIENE IN THE WORKPLACE.

OPERATING PRINCIPLE



PRO VERSION FLOW COMPENSATING VALVE.

Air back or oil feed line pressures can constantly change due to operating conditions.

Dropsa's compensating Flow Valve technology maintains a constant pressure delta across the oil regulating needle irrespective of both oil inlet pressure and outlet air pressure.

This feature means the desired oil flow is maintained at all operating pressures.

The INLET pressure is regulated, via the compensating valve to 1,5 bar (22,05 p.s.i.) above the outlet pressure.

Whatever the inlet pressure used on the system the compensating valve will adapt dynamically.

As the backpressure changes on the outlet, the compensating valve dynamically maintains 1.5 bar (22p.s.i.) pressure delta across the regulating spindle maintaining desired flow rate

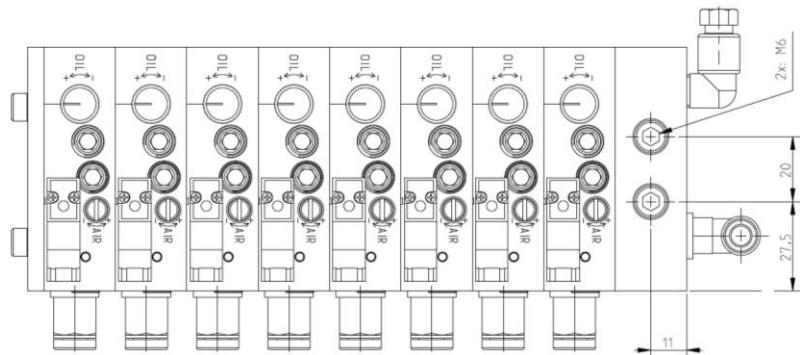
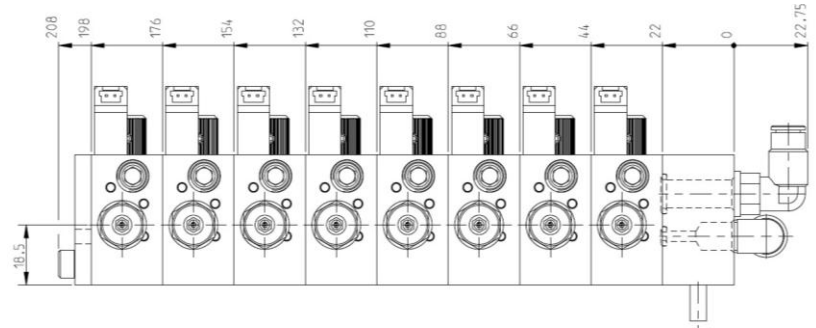
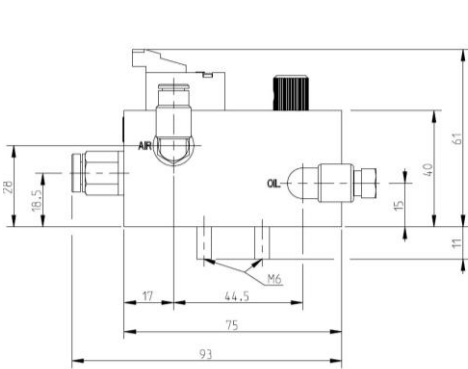
$$\Delta p_{(oil)} = \text{constant} (\sim 2 \text{ bar}) \Rightarrow Q_{(oil)} = \text{constant}$$

TECHNICAL CHARACTERISTICS

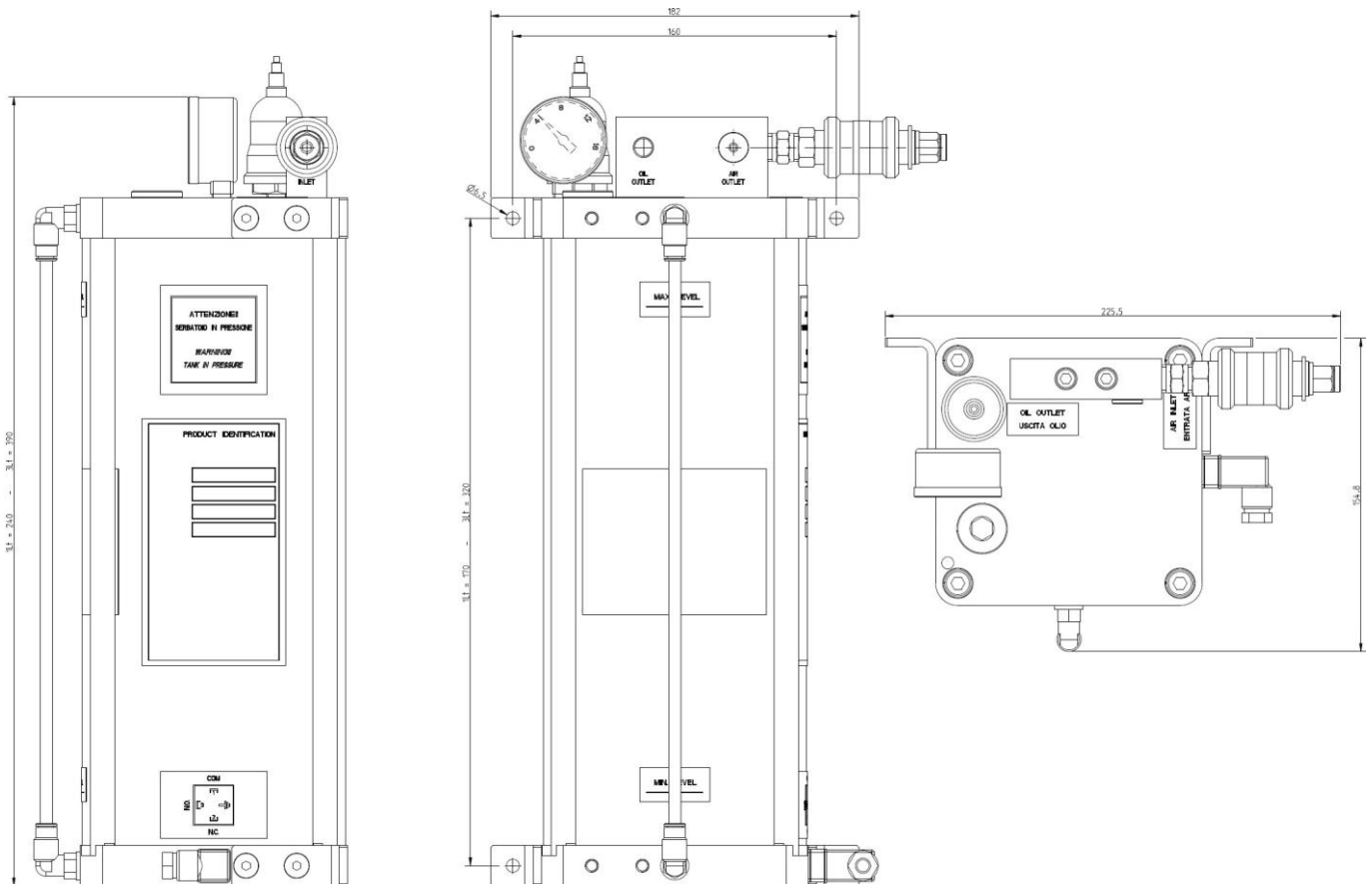
Pumping system	External pump
Maximum number of modules	8
Maximum Oil inlet pressure	2,5:1 in relation with air pressure
Air inlet pressure	4bar ÷ 7bar [87psi ÷ 101,5psi]
Maximum air consumption at the outlet	~50NI/min (per modulo)
Air inlet pipe	Ø6mm
Oil inlet pipe	Ø6mm
Air outlet pipe	Ø6mm
Oil outlet pipe	Ø3mm
Oil flowrate per element (with compensation valve)	0 ÷ 2cc/min (oil 10cSt ÷ 32 cSt) 0 ÷ 0,5cc/min (oil 32cSt ÷ 100 cSt)
Lubricant	10cSt ÷ 100cSt
Pressure switch calibration	6bar [87psi]
Element solenoid valve power supply	24Vdc
Operating temperature	+5°C ÷ +50°C
Storage temperature	-10°C ÷ +80°C
Max. relative humidity without operating condensate	90%
Sound pressure level	< 70 dB(A)



DIMENSIONS



Reservoir for MiQuel EXT (optional)





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ORDERING INFORMATION

VERSIONS		
VERSION	DESCRIPTION	CODE
MiQueL PRO – EXT	Air/Oil modular minimal system with compensation valve without a solenoid valve for independent control N(1-8) modules	313558N N=1÷8 (Modules)
MiQueL PRO – ε – EXT	Air/Oil modular minimal system with compensation valve with a solenoid valve for independent control N(1-8) modules	313559N N=1÷8 (Modules)
MiQueL BASE – EXT	Air/Oil modular minimal system without compensation valve without a solenoid valve for independent control N(1-8) modules	313560N N=1÷8 (Modules)
MiQueL BASE – ε – EXT	Air/Oil modular minimal system without compensation valve with a solenoid valve for independent control N(1-8) modules	313561N N=1÷8 (Modules)

ACCESSORIES AND SPARE PARTS	
CODE	DESCRIPTION
1525430	MiQueL PRO- ε - Modular element
1525440	MiQueL PRO - Modular element
1525450	MiQueL BASE- ε - Modular element
1525460	MiQueL BASE - Modular element
3133561	Pressurized Reservoir for MiQueL EXT – 1lt
3133560	Pressurized Reservoir for MiQueL EXT – 3lt
0020694	Pressure gauge for module AIR outlet (-ε)
1525446	Module solenoid valve connector (-ε)with 600mm cable
1525476	Module solenoid valve connector (-ε)with M8 connector
1525442	Module solenoid valve (-ε)
5717232	Outlet oil Ø3 tube
5717301	Ø6 AIR outlet pipe
3226664	Oil MK 150 20 lt.
3226665	Oil MK 100 25 lt.
3226666	Oil MK High Performance 29 lt.
3225465	Oil MK Stainless 20 lt
3133455	Coaxial nozzle - Narrow Cone Pattern
3133558	65° Coaxial nozzle – flat cone
3133564	FULL cone monotube nozzle
3133565	65° monotube nozzle flat cone
1525050	Monotube nozzle for 50mm BLADE
1525051	Monotube nozzle for 70mm BLADE
1525475	Device to remove Ø3 tube