





New Ultra-High Pressure Hydraulic Hose



Eaton's new DYNAMAX EC850 500 bar (7250 psi) hydraulic hose delivers dynamic performance for today's more-demanding hydraulic systems.

Designed for very demanding applications such as:

- Direct drive steering systems
- Mobile hydrostatic drive systems
- Other applications requiring extremely high system pressures

Over the years, hydraulic system pressures have steadily increased. Higher pressures provide greater power! Eaton was one of the early innovators of hydraulic hose and Eaton's corporate message is "Powering Business Worldwide" so it just makes sense that Eaton would develop this innovative and top-performing, new state-of-the-art, "high pressure" hydraulic hose incorporating the latest technologies in tube compounds, spiral wire reinforcement and abrasion resistant cover compounds.

Hydraulic pump manufacturers around the world are developing pumps that operate up to 500 bar (7250 psi) pressure.

Development of the new DYNAMAX hose was done in conjunction with development of the latest high performance pump technologies now being offered in the marketplace. Eaton's extreme test criteria closely simulate the rigorous and sometimes brutal performance and environmental requirements of real-life applications where these new systems are being used. To ensure long-lasting and effective hose performance, specific tests on EC850 were performed up to three million impulse cycles at working pressure, as compared to typical spiral hose specifications which require substantially fewer impulse cycles. Eaton's EC850 hose and hose fitting combination yielded a cool down leakage of class 0 in accordance with SAE J1176.

Higher Pressures Provide Greater Power!

Performance at the maximum pressure of demanding hydraulic systems Eaton DYNAMAX EC850 hose far exceeds the industry requirements providing longer life resulting in lower maintenance costs over the life of the equipment

Tested up to 3 million impulse cycles (-10 & -12) at working pressure

Features

- 4-spiral wire construction in hose sizes -10, -12 & -16;
 6-spiral wire construction in -20 size
- Highly abrasion resistant DURA-TUFF cover
- Up to 27% reduction in force to bend compared to standard SAE 100R15 hoses
- 10% reduced bend radius compared to standard SAE 100R15 hoses
- Size -10 (DN16): Exceeds EN856/4SP performance
- Size -12 through -20 (DN19 to DN31): Exceeds SAE 100R15 performance
- Hose materials meet global REACH requirements
- Class 0 cool down leakage in accordance with SAE J1176

Benefits

- Improved flexibility and bend radius enhance installation and routing capabilities
- 8 times better abrasion resistance as compared to standard rubber covered hoses with the DURA-TUFF cover
- Longer hose assembly life means more uptime and lower costs
- No hydraulic fluid leakage between hose and hose fitting when machine is shut off and system cools down
- Environmentally friendly materials

Applications

- High pressure hydraulic systems with petroleum based fluids
- Highly demanding applications: hydrostatic drive systems, high pressure direct steering and extremely high pressure hydraulic applications
- Critical applications in forestry, construction, agriculture, snow removal and other off-highway equipment



DYNAMAX EC850

#	10					
Part Number	Hose ID	Hose OD	Maximum Working Pressure	Burst Pressure	Minimum Bend Radius	Weight
	DN mm in	mm in	<mark>bar</mark> psi	<mark>bar</mark> psi	mm in	kg/m lbs/ft
EC850-10	16 15,9 0.63	29,0 1.14	500 7250	2000 29000	200,0 7.87	1,23 0.82
EC850-12	19 19,1 0.75	33,3 1.31	500 7250	2000 29000	215,0 8.46	1,52 1.01
EC850-16	25 25,4 1.00	40,4 1.59	500 7250	2000 29000	270,0 10.63	2,31 1.54
EC850-20	31 31,8 1.25	50,9 2.00	500 7250	2000 29000	380,0 14.96	4,01 2.69

Construction

Synthetic rubber tube, multiple heavy spiral wire (4-spiral wire in -10, -12, -16), (6-spiral wire in -20),

Highly abrasion resistant DURA-TUFF rubber cover

Operating Temperature Range

 -40° C to $+100^{\circ}$ C (-40°F to $+212^{\circ}$ F)

Agency Listings

MSHA IC-84, DIN 5510

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