

Eaton® Essential Fluid Conveyance



Eaton – one brand global solution

Exceptional value products for
original equipment manufacturers



EATON

Powering Business Worldwide

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The Eaton Winner range of hoses are available in mylar layline (when suffixed with 'L' in the part # - for e.g: EC210-xxL). Part # without L suffix would be supplied in inkjet layline.



Play it safe.

Know the moment your
hose needs attention.



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We make what's important work.

Unexpected hydraulic hose failure is a significant challenge with serious consequences; consequences that can be costly. Developing a solution that would help our customers deal with hydraulic power more safely, effectively, and efficiently just made sense.

The result is LifeSense, an intelligent hydraulic hose condition monitoring system that detects failure-related events within a hose and provides advance notification the product is approaching the end of its useful life.

How does it work?

The LifeSense system is based on the fact certain properties of a hose change as the hose approaches failure. We found by periodically comparing samples of these properties to a baseline gave a highly reliable indicator of imminent hose failure. Each hose fitting is equipped with a sensor that continuously monitors hose conditions via electrical signals which are submitted to a hose diagnostic unit which interprets the data. An alert is generated if the system identifies the hose has been compromised.

Innovation through partnership

Eaton initiated a research project in partnership with Purdue University to effectively address the issue of hydraulic hose failure. The project sought to identify measurable, structural phenomena associated with hose deterioration over time, and develop the required technology to monitor them accurately. Our joint research determined that hydraulic hose failure is the final step in a consistent process that can be measured and therefore monitored to provide a reliable indication of an approaching end-of-life condition. (U.S. Patent 7,555,936)

Industry accolades

From the time LifeSense was introduced in the fall of 2011 it has been repeatedly recognized as one of the most technologically significant innovations to hit the hydraulic market.



Eaton's LifeSense®

Hydraulic Hose Condition Monitoring

Two solutions, for the way you work.

Whatever you prefer, the freedom of wireless or the comfort of a wired device, LifeSense has a solution.

LifeSense Wired

- 12 or 24 volt direct current
- Hose diagnostic unit (HDU) continuously monitors up to 11 hose assemblies
- Alert notification on HDU
- Wire cable lengths available in 10, 15, 25, 50 or 100 feet

LifeSense Wireless

- Gateway monitors up to 100 hoses with a 433Hz frequency communication protocol
- Greater than six-year battery life
- Alert notifications on gateway
- Transmits operating performance data once per shift (every seven hours)
 - If issue arises gateway transmits data immediately
 - Sensors continually monitor hose
- Data access through web portal



Diagnostic unit

Continuously monitors real-time data and interprets the ongoing health of each hose assembly. An alert signals an impending hose failure. The unit can monitor up to 11 hose assemblies.



Fittings

Hose fitting sensor monitors and detects potential issues, and to transmits data to HDU or wireless gateway.

Hoses

System electronically monitors entire length of hose assembly.



LifeSense web portal

Now you can get operational data transmission to a secure Eaton server where you can access advanced system monitoring, hose installation data, connection status, trend reports, diagnostics management and much more.



Applications:

- Oil and gas
- Alternative energy
- Manufacturing
- Agriculture and Forestry
- Construction and Mining
- Material handling
- Vocational fleets
- Commercial vehicles

Features:

- Sizes -08, -12 and -16 2-wire braided 2SN specification
- Diagnostic unit monitors real-time data of each hose assembly
- An alert signals an impending hose failure
- Eaton's highly abrasion resistant synthetic rubber hose cover
- Hose fitting is hard-wired with sensor

Benefits:

- Provides over 50% more hose life
- Increases reliability – detects and warns of impending failure
- Safeguards workers
- Reduces risk of collateral damage
- Maximizes uptime – mitigates unexpected hose failures
- Improves maintenance operations efficiency – automates inspections, on-going and real-time monitoring
- Protects the environment – mitigates potential spills

Get the most from every hose 

Lab testing shows most hoses that are replaced on a time-based schedule of estimated life had actually reached less than half of their safe useful life. LifeSense can extend the useful service life of hoses by over 50 percent on average and virtually eliminate the current need to guess when to replace a hose.

Improve safety and peace of mind 

By providing advanced warning of impending hose failure, LifeSense gives you peace of mind knowing you're working safer than ever before. Concerns about idled equipment, environmental cleanup, collateral damage, and personal safety are lessened with LifeSense.

Detect and prevent hose failure 



Internal fatigue due to impact cycles and external abrasion are the two most common causes of hydraulic hose failure. In fact, combined, they account for over 80% of field failures.

LifeSense physically monitors hose condition so it can detect and provide timely notification of internal fatigue as well as external abrasion.

Maximize uptime and efficiency* 

At Eaton, we recognize our customers operate in industries with high uptime requirements and where unplanned downtime can mean substantial loss in time and money. These factors are a driving force behind LifeSense. LifeSense helps safeguard against unexpected work interruptions; thus, maximizing uptime, enhancing efficiency and providing critical performance value.



* Cost estimate based on Eaton proprietary study.

Product warnings/Eaton Terms & Conditions


Eaton's Aeroquip hose and fitting assembly product warning


Flexible hose lines offer many advantages over rigid tubing including routing ease, vibration absorption, sound deafening and the ability to accommodate movement of connected components. However, hose lines require caution in use not only to provide long service, but also to guard against potentially dangerous failure.

Important

The user should carefully observe the precautions listed in this catalog, including the recommendations on the selection of hose and fittings on the relevant pages, and the pages on fluid compatibility.

In addition, care should be taken not to exceed the minimum bend radius listed for each hose size and type in the hose section. Maximum operating pressure should not exceed pressures listed in the hose data. Instructions for assembling fittings to different hose should be followed carefully to ensure the performance of the completed assembly.

 **Warning:** Eaton fitting tolerances are engineered to match Eaton's Aeroquip hose tolerances. The use of Eaton fittings on hose supplied by other manufacturers and/or the use of Eaton's Aeroquip hose with fittings supplied by other manufactures may result in the production of unreliable and unsafe hose assemblies and is neither recommended nor authorized by Eaton or any of its affiliates or subsidiaries.

 **Warning:** Application considerations must be observed in selecting appropriate components for the application of these products contained herein. The failure to follow the recommendations set forth in this catalog may result in an unstable application which may result in serious personal injury or property damage.

EATON OR ANY OF ITS AFFILIATES OR SUBSIDIARIES SHALL NOT BE SUBJECT TO AND DISCLAIMS ANY OBLIGATIONS OR LIABILITIES (INCLUDING BUT NOT LIMITED

TO ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES) ARISING FROM TORT CLAIMS (INCLUDING WITHOUT LIMITATION NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES OF LAW WITH RESPECT TO ANY HOSE ASSEMBLIES NOT PRODUCED FROM GENUINE AEROQUIP HOSE FITTINGS, HOSE AND AEROQUIP APPROVED EQUIPMENT, AND IN CONFORMANCE WITH EATON'S AEROQUIP PROCESS AND PRODUCT INSTRUCTIONS FOR EACH SPECIFIC HOSE ASSEMBLY.

Failure to follow these processes and product instructions and limitations could lead to premature hose assembly failures resulting in property damage, serious injury or death.


Routing

If the user follows the recommendations on hose line routing and installation as provide herein, improved safety and longer service life of any hose installation will result.

The following recommendations on selection, installation and maintenance of hose assemblies was established by the S.A.E. in 1991. Please read these general instructions carefully. More detailed information on many of these subjects is covered in this catalog.

1.0 SCOPE

Hose (also includes hose assemblies) has a finite life and there are a number of factors which will reduce its life. This recommended practice is intended as a guide to assist system designers and/or users in the selection, installation, and maintenance of hose. The designers and users must make a systematic review of each application and then select, install, and maintain the hose to fulfill the requirements of the application. The following are general guidelines and are not necessarily a complete list.

 **Warning:** Improper selection, installation, or maintenance may result in premature failures, bodily injury, or property damage.

Product warnings/Eaton Terms & Conditions

Selection, installation and maintenance of hose and assemblies — SAE J1273 October 1996

2.0 REFERENCES

2.1 Applicable documents

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply.

2.1.1 SAE publications

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.J516 - Hydraulic Hose Fittings J517 - Hydraulic Hose

3. SELECTION

The following is a list of factors which must be considered before final hose selection can be made.

3.1 Pressure

After determining the system pressure, hose selection must be made so that the recommended maximum operating pressure is equal to or greater than the system pressure. Surge pressures higher than the maximum operating pressure will shorten hose life and must be taken into account by the hydraulic designer.

3.2 Suction

Hoses used for suction applications must be selected to insure the hose will withstand the negative pressure of the system.

3.3 Temperature

Care must be taken to insure that fluid and ambient temperatures, both static and transient, do not exceed the limitations of the hose. Special care must be taken when routing near hot manifolds.

3.4 Fluid Compatibility

Hose selection must assure compatibility of the hose tube, cover and fittings with the fluid used. Additional caution must be observed in hose selection for gaseous applications.

3.5 Size

Transmission of power by means of pressurized fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage to the hose due to heat generation or excessive turbulence.

3.6 Routing

Attention must be given to optimum routing to minimize inherent problems.

3.7 Environment

Care must be taken to insure that the hose and fittings are either compatible with or protected from the environment to which they are exposed. Environmental conditions such as ultraviolet light, ozone, salt water, chemicals, and air pollutants can cause degradation and premature failure and, therefore, must be considered.

3.8 Mechanical loads

External forces can significantly reduce hose life. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel-type fittings or adapters may be required to insure no twist is put into the hose. Unusual applications may require special testing prior to hose selection.

3.9 Abrasion

While hose is designed with a reasonable level of abrasion resistance, care must be taken to protect the hose from excessive abrasion which can result in erosion, snagging and cutting of the hose cover. Exposure of the reinforcement will significantly accelerate hose failure.

3.10 Proper end fitting

Care must be taken to insure proper compatibility exists between the hose and coupling selected based on the manufacturer's recommendations

Product warnings/Eaton Terms & Conditions

Selection, installation and maintenance of hose and assemblies — SAE J1273 October 1996

substantiated by testing to industry standards such as SAE J517. End fitting components from one manufacturer are usually not compatible with end fitting components supplied by another manufacturer (i.e., using a hose fitting nipple from one manufacturer with a hose socket from another manufacturer). It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for proper end fitting componentry.

3.11 Length

When establishing proper hose length, motion absorption, hose length changes due to pressure, as well as hose and machine tolerances must be considered.

3.12 Specifications and standards

When selecting hose, government, industry and manufacturers' specifications and recommendations must be reviewed as applicable.

3.11 Hose cleanliness

Hose components vary in cleanliness levels. Care must be taken to insure that the assemblies selected have an adequate level of cleanliness for the application.

3.14 Electrical conductivity

Certain applications require that hose be nonconductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Hose and fittings must be chosen with these needs in mind.

4. INSTALLATION

After selection of proper hose, the following factors must be considered by the installer.

4.1 Pre-installation inspection

Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size and length. In addition,

the hose must be examined for cleanliness, I.D. obstructions, blisters, loose cover, or any other visible defects.

4.2 Follow manufacturers' assembly instructions

Hose assemblies may be fabricated by the manufacturer, an agent for or customer of the manufacturer, or by the user. Fabrication of permanently attached fittings to hydraulic hose requires specialized assembly equipment. Field-attachable fittings (screw style and segment clamp style) can usually be assembled without specialized equipment although many manufacturers provide equipment to assist in the operation. SAE J517 hose from one manufacturer is usually not compatible with SAE J516 fittings supplied by another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written assembly instructions or the manufacturers directly before intermixing hose and fittings from two manufacturers. Similarly, assembly equipment from one manufacturer is usually not interchangeable with that of another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for proper assembly equipment. Always follow the manufacturer's instructions for proper preparation and fabrication of hose assemblies.

4.3 Minimum bend radius

Installation at less than minimum bend radius may significantly reduce hose life. Particular attention must be given to preclude sharp bending at the hose/fitting juncture.

4.4 Twist angle and orientation

Hose installations must be such that relative motion of machine components produces bending of the hose rather than twisting.

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Selection, installation and maintenance of hose and assemblies — SAE J1273 October 1996

4.5 Securement

In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to insure such restraints do not introduce additional stress or wear points.

4.6 Proper connection of ports

Proper physical installation of the hose requires a correctly installed port connection while insuring that no twist or torque is put into the hose.

4.7 Avoid external damage

Proper installation is not complete without insuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated.

4.8 System check out

After completing the installation, all air entrapment must be eliminated and the system pressurized to the maximum system pressure and checked for proper function and freedom from leaks.

Note: Avoid potential hazardous areas while testing.

5. MAINTENANCE

Even with proper selection and installation, hose life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program should include the following as a minimum.

5.1 Hose storage

Hose products in storage can be affected adversely by temperature, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents and radioactive materials. Storage areas should be relatively cool and dark and free of dust, dirt, dampness and mildew.

5.2 Visual inspection

Any of the following conditions requires replacement of the hose:

- (a) Leaks at fitting or in hose (leaking fluid is a fire hazard)
- (b) Damaged, cut, or abraded cover (any reinforcement exposed)
- (c) Kinked, crushed, flattened, or twisted hose
- (d) Hard, stiff, heat cracked or charred hose
- (e) Blistered, soft, degraded, or loose cover
- (f) Cracked, damaged, or badly corroded fittings
- (g) Fitting slippage on hose

5.3 Visual inspection

The following items must be tightened, repaired, or replaced as required:

- (a) Leaking port conditions
- (b) Clamps, guards, shields
- (c) Remove excessive dirt buildup
- (d) System fluid level, fluid type, and any air entrapment

5.4 Functional test

Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks.

Note: Avoid potential hazardous areas while testing.

5.5 Replacement intervals

Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable down time, damage, or injury risk.

Hydraulic hose

Eaton Winner – EC110

SAE 100R1AT Type S / EN853-1SN



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC110-04L	6	6,4	0.25	14,1	0.56	225	3,250	900	13,000	100,0	3.99	0.22	0.15
EC110-05L	8	7,9	0.31	15,7	0.62	215	3,125	860	12,500	115,0	4.53	0.26	0.17
EC110-06L*	10	9,5	0.38	18,1	0.71	180	2,600	720	10,400	130,0	5.12	0.33	0.22
EC110-08L*	12	12,7	0.50	21,4	0.84	160	2,300	640	9,200	180,0	7.09	0.41	0.28
EC110-10L	16	15,9	0.62	24,5	0.96	130	1,900	520	7,600	200,0	7.87	0.47	0.32
EC110-12L*	19	19,0	0.75	28,5	1.12	105	1,525	420	6,100	240,0	9.45	0.59	0.40
EC110-16L*	25	25,4	1.00	36,6	1.44	88	1,275	352	5,100	300,0	11.81	0.87	0.58
EC110-20L	31	31,8	1.25	44,8	1.76	63	925	252	3,700	420,0	16.54	1.20	0.81
EC110-24L	45	38,1	1.50	52,1	2.05	50	725	200	2,900	500,0	19.69	1.40	0.94
EC110-32L	51	50,8	2.00	65,5	2.58	40	580	160	2,320	630,0	24.8	1.91	1.28

Construction

- Synthetic rubber tube, single wire braid reinforcement, and black synthetic rubber cover MSHA Approved

Operating temperature range

-40°C to +100°C
(-40°F to +212°F)

Application

Hydraulic system service with petroleum and water-based fluids for general industrial service. For more information on specific fluid applications contact Eaton.

Fitting reference

Crimp

- * Winner Two piece non-skive and Aeroquip one piece non-skive. For detail information, contact Eaton representative.

Hydraulic hose

Eaton Winner – EC115

EN857 – 1SC



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC115-04L	6	6,4	0.25	13,5	0.53	225	3,250	900	13,000	75,0	2.95	0.18	0.12
EC115-05L	8	7,9	0.31	14,5	0.57	215	3,125	860	12,500	85,0	3.35	0.20	0.13
EC115-06L	10	9,5	0.38	16,9	0.67	180	2,600	720	10,400	90,0	3.54	0.26	0.17
EC115-08L	12	12,7	0.50	20,4	0.80	160	2,300	640	9,200	130,0	5.12	0.34	0.23
EC115-10L	16	15,9	0.62	23,0	0.91	130	1,900	520	7,600	150,0	5.91	0.42	0.28
EC115-12L	19	19,0	0.75	26,7	1.05	105	1,525	420	6,100	180,0	7.09	0.50	0.34
EC115-16L	25	25,4	1.00	34,9	1.37	88	1,275	352	5,100	230,0	9.06	0.74	0.50
EC115-20L	31	31,8	1.25	42,4	1.67	63	915	252	3,660	210,0	8.27	0.99	0.67

Construction

- Synthetic rubber tube, single wire braid reinforcement, and black synthetic rubber cover MSHA Approved

Application

Hydraulic system service with petroleum and water-based fluids for general industrial service. For more information on specific fluid applications contact Eaton.

Fitting reference

Winner Two piece non-skive and Aeroquip one piece non-skive. For detail information, contact Eaton representative.

Operating temperature range

-40°C to +100°C
(-40°F to +212°F)

Hydraulic hose

Eaton Winner – EC210

SAE 100R2AT Type S / EN853-2SN



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC210-04L*	6	6,4	0.25	15,7	0.62	400	5,800	1600	23,200	100,0	3.94	0.38	0.26
EC210-05L	8	7,9	0.31	17,3	0.68	350	5,100	1400	20,400	115,0	4.53	0.43	0.29
EC210-06L*	10	9,5	0.38	19,7	0.78	330	4,800	1320	19,200	130,0	5.12	0.54	0.36
EC210-08L*	12	12,7	0.50	23,0	0.91	275	4,000	1100	16,000	180,0	7.09	0.64	0.43
EC210-10L	16	15,9	0.62	26,2	1.03	250	3,650	1000	14,600	200,0	7.87	0.75	0.50
EC210-12L*	19	19,0	0.75	30,1	1.09	215	3,125	860	12,500	240,0	9.45	0.93	0.62
EC210-16L*	25	25,4	1.00	38,9	1.53	165	2,400	660	9,600	300,0	11.81	1.29	0.87
EC210-20L	31	31,8	1.25	49,5	1.95	125	1,800	500	7,200	420,0	16.54	1.89	1.27
EC210-24L	45	38,1	1.50	55,9	2.20	90	1,300	360	5,200	500,0	19.69	2.10	1.41
EC210-32L	51	50,8	2.00	68,6	2.70	80	1,150	320	4,600	630,0	24.8	2.76	1.85

Construction

- Synthetic rubber tube, two wire braid reinforcement, and black synthetic rubber cover MSHA Approved

Operating temperature range

-40°C to +100°C
(-40°F to +212°F)

Application

Hydraulic system service with petroleum and water-based fluids for general industrial service. For more information on specific fluid applications contact Eaton.

Fitting reference

Crimp

- * Winner Two piece non-skive and Aeroquip one piece non-skive. For detail information, contact Eaton representative.

Hydraulic hose

Eaton Winner – EC215

EN857 – 2SC



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC215-04L	6	6,4	0.25	14,2	0.56	400	5,800	1600	23,200	75,0	2.95	0.28	0.19
EC215-05L	8	7,9	0.31	16,0	0.63	350	5,100	1400	20,400	85,0	3.35	0.33	0.22
EC215-06L	10	9,5	0.38	18,3	0.72	330	4,800	1320	19,200	90,0	3.54	0.41	0.28
EC215-08L	12	12,7	0.50	21,5	0.85	275	4,000	1100	16,000	130,0	5.12	0.57	0.38
EC215-10L	16	15,9	0.62	24,7	0.97	250	3,650	1000	14,600	170,0	6.69	0.68	0.46
EC215-12L	19	19,0	0.75	28,6	1.13	215	3,125	860	12,500	200,0	7.87	0.81	0.54
EC215-16L	25	25,4	1.00	36,6	1.44	165	2,400	660	9,600	250,0	9.84	1.17	0.79
EC215-20L	31	31,8	1.25	45,1	1.78	125	1,800	500	7,200	250,0	9.84	1.56	1.05
EC215-24L	38	38,1	1.50	52,3	2.06	100	1,450	400	5,800	300,0	11.81	1.81	1.22

Construction

- Synthetic rubber tube, two wire braid reinforcement, and black synthetic rubber cover MSHA Approved

Application

Hydraulic system service with petroleum and water-based fluids for general industrial service. For more information on specific fluid applications contact Eaton.

Fitting reference

Winner Two piece non-skive and Aeroquip one piece non-skive. For detail information, contact Eaton representative.

Operating temperature range

-40°C to +100°C
(-40°F to +212°F)

Hydraulic hose

Eaton Winner – EC118

SAE 100R 17 - 3000psi Constant Pressure - Highly Flexible



# Part No.	Hose I.D.		Hose O.D.		Max Operating Pressure		Proof Pressure		Burst Pressure		Minimum Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC118-04	6.4	0.25	12.2	0.48	210	3045	420	6090	1050	15225	50	1.97	0.18	0.12
EC118-05	8.0	0.31	13.6	0.54	210	3045	420	6090	1000	14500	55	2.17	0.20	0.13
EC118-06	9.5	0.38	15.5	0.61	210	3045	420	6090	950	13775	65	2.56	0.27	0.18
EC118-08	12.7	0.50	19.0	0.75	210	3045	420	6090	900	13050	90	3.54	0.36	0.24
EC118-10	16.0	0.63	23.8	0.94	210	3045	420	6090	1000	14500	100	3.94	0.69	0.46
EC118-12	19.0	0.75	27.7	1.09	210	3045	420	6090	950	13775	120	4.72	0.81	0.54
EC118-16	25.4	1.00	36.0	1.42	210	3045	420	6090	900	13050	150	5.91	1.21	0.81

Construction

- Synthetic rubber tube, single wire braid reinforcement, and black synthetic rubber cover MSHA Approved

Operating temperature range

-40°C to +100°C
(-40°F to +212°F)

Application

Hydraulic system service with petroleum and water-based fluids for general industrial service. For more information on specific fluid applications contact Eaton.

Fitting reference

Contact Eaton Representative.

Hydraulic hose

EC426

Meets / Exceeds EN856 4SP



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC426-06	10	9,5	0.38	22,2	0.87	445	6450	1780	25800	180	7.09	0.73	0.49
EC426-08	12	12,7	0.50	25,4	1.00	415	6000	1660	24000	230	9.06	0.88	0.59
EC426-10	16	15,9	0.62	29,0	1.14	350	5100	1400	20400	250	9.84	1.04	0.70
EC426-12	19	19,0	0.75	33,0	1.30	350	5100	1400	20400	300	11.81	1.47	0.99
EC426-16	25	25,4	1.00	40,9	1.61	280	4050	1120	16200	340	13.39	1.90	1.28
EC426-20	31	31.8	1.25	52,4	2.06	210	3050	840	12200	460	18.11	2.93	1.97

Construction

- Synthetic Rubber Tube
- 4 Spiral Wire Reinforcement
- Black Synthetic Rubber cover
- Ink Transfer Layline

Operating temperature

-40°C to +100°C
(-40°F to +212°F)

Agency listings

MSHA Approved

Application

- High Pressure Hydraulic System
- Petroleum & Water-Based Fluids
- Construction Equipment
- Agriculture Equipment

Fitting reference

Contact Eaton representative.

Hydraulic hose

EC512

Meets / Exceeds EN856 4SH



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC512-12	19	19,0	0.75	33,0	1.30	420	6100	1680	24400	280	11.02	1.47	0.99
EC512-16	25	25,4	1.00	40,9	1.61	380	5500	1520	22000	340	13.39	2.04	1.37
EC512-20	31	31,8	1.25	52,4	2.06	350	5100	1400	20400	460	18.11	2.39	1.61
EC512-24	38	38,1	1.50	55,1	2.16	290	4200	1160	16800	560	22.05	3.19	2.14
EC512-32	51	50,8	2.00	69,7	2.74	250	3650	1000	14600	700	27.56	4.37	2.94

Construction

- Synthetic Rubber Tube
- 4 Spiral Wire Reinforcement
- Black Synthetic Rubber Cover
- Ink Transfer Layline

Application

- High Pressure Hydraulic System
- Petroleum & Water-Based Fluids
- Construction Equipment
- Agriculture Equipment

Fitting reference

Contact Eaton representative.

Operating temperature

-40°C to +100°C
(-40°F to +212°F)

Agency listings

MSHA Approved

Hydraulic hose

EC520

SAE 100R13 Performance



# Part No.	DN	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
		mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC520-08	12	12,7	0.50	22,2	0.87	350	5100	1400	20400	115	4.53	0.76	0.51
EC520-10	16	15,9	0.62	26,0	1.02	350	5100	1400	20400	125	4.92	0.93	0.63
EC520-12	19	19,0	0.75	31,0	1.22	350	5100	1400	20400	140	5.51	1.32	0.89
EC520-16	25	25,4	1.00	38,4	1.51	350	5100	1400	20400	150	5.91	1.95	1.31
EC520-20	31	31,8	1.25	51,3	2.01	350	5100	1400	20400	420	16.54	3.82	2.57
EC520-24	38	38,1	1.50	58,8	2.31	350	5100	1400	20400	500	19.69	4.77	3.21
EC520-32	51	50,8	2.00	72,7	2.86	350	5100	1400	20400	630	24.80	6.31	4.24

Construction

- Synthetic Rubber Tube
- 4 Spiral Wire Reinforcement (-8 thru -16)
- 6 Spiral Wire Reinforcement (-20 thru -32)
- Black Synthetic Rubber Cover
- Ink Transfer Layline

Agency listings

MSHA Approved

Application

- High Pressure Hydraulic System
- Petroleum & Water-Based Fluids
- Construction Equipment
- Agriculture Equipment

Fitting reference

Contact Eaton representative.

Operating temperature









-40°C to +120°C
(-40°F to +212°F)

Hydraulic hose

EC082

SAE 100R1AT Type S / EN853-1SN



#																	
	Part No.	DN	Hose I.D.		Hose O.D.		W.B.O.D.		Max Operating Pressure		Proof Pressure		Burst Pressure		Minimum Bend Radius		Weight
		mm	in	mm	in	mm	in	bar	psi	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
EC082-04	6	6,4	0,252	12,0	0,473	10,3	0,406	105	1,523	210	3,046	600	8,675	25,0	0,98	0,15	0,10

Construction

Synthetic rubber tube, single wire braid reinforcement, and black synthetic rubber cover

Operating temperature range

-40°C to 100°C for Petroleum based Hydraulic Fluids

-40°C to 70°C for Water based Hydraulic Fluids

0°C to 70°C for Water

Application

Hydraulic system service with petroleum and water-based fluids for general industrial service. For more information on specific fluid applications contact Eaton.

Fitting reference

Contact Eaton representative.

Hydraulic hose

GH663 Matchmate Global™ 1/2 SAE Bend Radius

Meets or exceeds:

SAE 100R1AT Type S, EN853 1SN, ISO 1436-1 Type 1SN



# Part No.	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
GH663-4	6,4	0.25	13,5	0.53	255,0 192,0	3700† 2750	1020,0 770,0	14800 † 11000	51,0	2.00	0.24	0.16
GH663-6	9,7	0.38	17,5	0.69	235,0 157,0	3400† 2250	940,0 630,0	13600† 9000	62,5	2.50	0.37	0.25
GH663-8	12,7	0.50	20,6	0.81	200,0 140,0	2900† 2000	800,0 560,0	11600 † 8000	90,0	3.50	0.45	0.30
GH663-12	19,1	0.75	27,8	1.09	138,0 87,0	2000† 1250	552,0 350,0	8000 † 5000	120,0	4.75	0.67	0.45
GH663-16	25,4	1.00	35,8	1.41	103,0 70,0	1500† 1000	412,0 280,0	6000 † 4000	150,0	6.00	1.01	0.68
GH663-20	31,8	1.25	43,4	1.71	69,0	1000	276,0	4000	210,0	8.25	1.31	0.88
GH663-24	38,1	1.50	50,6	1.99	52,0	750	208,0	3000	250,0	10.00	1.56	1.05
GH663-32	50,8	2.00	64,0	2.52	41,0	600	164,0	2400	315,0	12.50	1.95	1.31

Construction

Synthetic rubber tube, single wire braid reinforcement and DURA-TUFF™ synthetic rubber cover. Meets or exceeds EN requirements at 1/2 SAE Bend Radius.

Operating temperature

-46°C to +127°C
(-50°F to +260°F)

Agency listings

MSHA Approved

Application

Hydraulic system service with petroleum and water-base fluids, for general industrial service.

For more information on specific fluid applications and high temperature ratings, please refer to Eaton Aeroquip Hydraulic Hose Assembly Master Catalog A-HOOV-MC001-E2.

† Improved performance when used with Global Crimp fittings.

Hydraulic hose

GH793 matchmate Global

Meets or exceeds:

SAE 100R1AT Type S, EN853 1SN, ISO 1436-1 Type 1SN



Triple Crown Advantage

- Pressure
- Temperature
- Abrasion Resistance

# Part No.	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
GH793-4	6,4	0.25	15,2	0.6	448,0 350,0	6500† 5000	1792,0 1400,0	26000† 20000	101,6	4	0,39	0.26
GH793-6	9,7	0.38	19,1	0.75	400,0 280,0	5800† 4000	1600,0 1120,0	23200† 16000	127,0	5	0,57	0.38
GH793-8	12,7	0.5	22,1	0.87	345,0 245,0	5000† 3500	1380,0 980,0	20000† 14000	177,8	7	0,68	0.46
GH793-10	16,0	0.63	24,9	0.98	276,0 192,0	4000† 2750	1104,0 770,0	16000† 11000	203,2	8	0,80	0.54
GH793-12	19,1	0.75	29,5	1.16	241,0 157,0	3500† 2250	964,0 630,0	14000† 9000	241,3	9.5	0,98	0.66
GH793-16	25,4	1	38,1	1.5	207,0 140,0	3000† 2000	828,0 560,0	12000† 8000	304,8	12	1,50	1.01
GH793-20	31,8	1.25	48,8	1.92	172,0	2500	688,0	10000	419,1	16.5	2,29	1.54
GH793-24	38,1	1.5	54,6	2.15	138,0	2000	552,0	8000	508,0	20	2,50	1.68
GH793-32	50,8	2	63,8	2.51	110,0	1600	440,0	6400	635,0	25	3,30	2.22

Construction

Synthetic rubber tube, single wire braid reinforcement and DURA-TUFF™ synthetic rubber cover.

Operating temperature

−40°C to +127°C
(−40°F to +260°F)

Agency listings

MSHA Approved

Application

Hydraulic system service with petroleum and water-base fluids, for general industrial service. For more information on specific fluid applications and high temperature ratings, please refer to Eaton Aeroquip Hydraulic Hose Assembly Master Catalog A-HOOV-MC001-E2.

† Improved performance when used with Global Crimp fittings.

Hydraulic hose

GH781 Matchmate Global™ Double Wire Braid







Meets or exceeds:

SAE 100R16 Type S, EN857 2SC, ISO 11237-1 Type 2SC



Triple Crown Advantage

- Pressure
- Temperature
- Abrasion Resistance

# Part No.	 Hose I.D.		 Hose O.D.		 Max Operating Pressure		 Burst Pressure		 Minimum Bend Radius		 Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
GH781-4	6,4	0.25	13,5	0.53	448,0	6500	1792,0	26000	50,8	2.00	0,33	0.22
GH781-6	9,7	0.38	17,5	0.69	366,0	5300	1464,0	21200	63,5	2.50	0,43	0.29
GH781-8	12,7	0.5	20,6	0.81	310,0	4500	1240,0	18000	88,9	3.50	0,58	0.39
GH781-10	16,0	0.63	23,6	0.93	276,0	4000	1104,0	16000	101,6	4.00	0,65	0.44
GH781-12	19,1	0.75	27,9	1.10	241,0	3500	964,0	14000	120,7	4.75	0,79	0.53
GH781-16	25,4	1.00	36,1	1.42	207,0	3000	828,0	12000	152,4	6.00	1,07	0.72
GH781-20	31,8	1.25	41,9	1.65	172,0	2500	688,0	10000	209,6	8.25	1,62	1.09
GH781-24	38,1	1.5	51,6	2.03	138,0	2000	552,0	8000	254,0	10.00	2,08	1.40
GH781-32	50,8	2.00	64,3	2.53	110,0	1600	440,0	6400	317,5	12.50	2,83	1.90

Construction

Synthetic rubber tube, double wire braid reinforcement and DURA-TUFF™ synthetic rubber cover. Meets or exceeds EN requirements at 1/2 SAE Bend Radius.

Operating temperature

−46°C to +127°C
(−50°F to +260°F)

Application

Hydraulic system service with petroleum and water-base fluids, for general industrial service. For more information on specific fluid applications and high temperature ratings, please refer to Eaton Aeroquip Hydraulic Hose Assembly Master Catalog A-HOOV-MC001-E2.

Hydraulic hose

2755 High Pressure Hose

DIN EN856/4SP



# Part No.	Hose I.D.		Hose O.D.		Max Operating Pressure		Min. Burst Pressure		Minimum Bend Radius	Weight
	mm	in	mm	in	bar	psi	bar	psi	mm	kg/mtr
2755-6	9.5	0.38	21.4	0.84	490	7100	1960	28400	180	0.76
2755-8	12.7	0.50	24.6	0.97	420	6090	1680	24360	230	0.96
2755-10	15.9	0.63	28.2	1.11	400	5800	1600	23200	250	1.20
2755-12	19.0	0.75	32.2	1.26	380	5510	1520	22040	300	1.50
2755-16	25.4	1.00	39.7	1.56	320	4640	1280	18560	340	2.10

Construction

Synthetic NBR rubber tube, 4-spiral wire reinforcement, synthetic CR rubber cover.

Operating temperature

-40°C to +100°C
short-term +120°C

Application/Performance

High pressure hydraulic systems with petroleum and lubricating oils. Applications such as construction equipment and fork lifts (hydrostatic drive). Exceeds DIN EN856/4SP performance specifications. Qualified based on a min. of 500.000 impulse cycles.

Type-Certification

ABS/BV/BWB/DNV/GL/
DIN5510T2/NFF16-101/
RINA

Hydraulic hose

GH506 Four Spiral Wire

EN 856 4SH



# Part No.	Hose I.D.		Hose O.D.		Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
GH506-12*	19,1	0.75	32,3	1.27	420,0	6100	1680,0	24400	280,0	11.00	1,49	1.00
GH506-16*	25,4	1.00	38,4	1.51	380,0 ‡420,0	5500 6100	1520,0 ‡1680,0	22000 24400	340,0	13.38	2,05	1.38
GH506-20	31,8	1.25	45,5	1.79	350,0	5100	1400,0	20400	460,0	18.11	2,54	1.71
GH506-24	38,1	1.50	53,6	2.11	300,0	4350	1200,0	17400	560,0	22.05	3,27	2.20
GH506-32	50,8	2.00	68,1	2.68	250,0	3650	1000,0	14600	700,0	27.56	4,58	3.08

Construction

Synthetic rubber tube, 4-heavy spiral wire reinforcement, synthetic DURA-TUFF™ rubber cover.

Operating temperature

-40°C to +100°C
(-40°F to +212°F)

Application

Four wire hose for high pressure hydraulic systems with petroleum and water-base fluids. For more information on specific fluid applications and high temperature ratings, please refer to Eaton Aeroquip Hydraulic Hose Assembly Master Catalog A-HOOV-MC001-E2.

* 2 million FLEX Impulse Cycles (use of Eaton approved "1W" internal skive fittings only).

‡Improved pressure performance when used with Eaton approved internal skive fittings

Fitting reference

*Contact Eaton for approved "1W" Internal Skive Fittings and Sockets.

Hydraulic hose







GH493 Matchmate Global™ 1/2 SAE Bend Radius Four Spiral Wire

SAE 100R12, EN 856 Type R12,
EN856 4SP Performance (-8 thru -16)



Triple Crown Advantage

- Pressure
- Temperature
- Abrasion Resistance

# Part No.	 Hose I.D.		 Hose O.D.		 Max Operating Pressure		 Burst Pressure		 Minimum Bend Radius		 Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
GH493-6	9,7	0.38	20,1	0.79	448,0 280,0	6500 4000*	1792,0 1120,0	26000 16000*	62,0** 125,0	2.50** 5.00	0,70	0.47
GH493-8	12,7	0.5	23,4	0.92	415,0 280,0	6000 4000*	1660,0 1120,0	24000 16000*	90,0** 180,0	3.50** 7.00	0,88	0.59
GH493-10	16,0	0.63	28,2	1.11	415,0 280,0	6000 4000*	1660,0 1120,0	24000 16000*	100,0** 200,0	4.00** 8.00	1,03	0.69
GH493-12	19,1	0.75	30,5	1.20	380,0	5500	1520,0	22000	120,0** 240,0	4.75** 9.50	1,37	0.92
GH493-16	25,4	1.00	37,6	1.48	350,0	5100	1400,0	20400	150,0** 300,0	6.00** 12.0	1,82	1.22
GH493-20	31,8	1.25	46,5	1.83	310,0	4500	1240,0	18000	210,0** 420,0	8.25** 16.50	2,44	1.64
GH493-24	38,1	1.50	53,8	2.12	275,0	4000	1100,0	16000	250,0** 500,0	10.00** 20.00	3,12	2.10
GH493-32	50,8	2.00	67,1	2.64	275,0	4000	1100,0	16000	320,0**	12.50** 25.00	4,18	2.81

Construction

Synthetic rubber tube, 4-spiral wire reinforcement and DURATUFF™ synthetic rubber cover.

Operating temperature

-40°C to +127°C
(-40°F to +260°F)

Application

Hydraulic system service with petroleum and water-base fluids, for general industrial service. For more information on specific fluid applications and high temperature ratings, please refer to Eaton Aeroquip Hydraulic Hose Assembly Master Catalog A-HOOV-MC001-E2.

*Pressure rating with reusable fittings

**1/2 SAE Bend Radius with TTC12 fittings.

Agency listings

MSHA Approved

Hydraulic hose

GH466

Six Spiral Wire



# Part No.	Hose I.D.		Hose O.D.		Max Operating Pressure		Burst Pressure		Minimum Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
GH466-20*	31,8	1.25	49,3	1.94	420,0	6100	1680,0	24400	420,0	16.5	3,48	2.34
GH466-24*	38,1	1.5	57,4	2.26	420,0	6100	1680,0	24400	510,0	20.8	4,63	3.11
GH466-32*	51,4	2.02	71,7	2.82	420,0	6100	1680,0	24400	630,0	24.8	6,70	4.5

Construction

Synthetic rubber tube, 4-heavy spiral wire reinforcement, synthetic DURA-TUFF™ rubber cover.

Operating temperature

-40°C to +100°C
(-40°F to +212°F)

Agency listings

MSHA Approved

Application

Six wire spiral hose for pressure systems with extreme pressure peaks. For use with petroleum and water-base fluids. For more information on specific fluid applications and high temperature ratings, please refer to Eaton Aeroquip Hydraulic Hose Assembly Master Catalog A-HOOV-MC001-E2.

* 2 million FLEX Impulse Cycles (use of Eaton approved "1W" internal skive fittings only).



Play it safe.

Raising the bar on ultra-high pressure spiral hydraulic hose



Powering Business Worldwide

DYNAMAX™ EC850

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.

DYNAMAX™ EC850

Higher pressures provide greater power!

Performance at the maximum pressure of demanding hydraulic system

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: hydro-static 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

New Ultra-High Pressure Hydraulic Hose



# Part No.	 Hose I.D.		 Hose O.D.		 Max Operating Pressure		 Burst Pressure		 Minimum Bend Radius		 Weight	
	DM	mm in	mm in	mm in	bar psi	bar psi	bar psi	bar psi	mm in	mm in	kg/m lbs/ft	kg/m lbs/ft
EC850-10	16	15,9 0.63	29,0 1.14	29,0 1.14	500 7250	500 7250	2000 29000	2000 29000	200,0 7.87	200,0 7.87	1,23 0.82	1,23 0.82
EC850-12	19	19,1 0.75	33,3 1.31	33,3 1.31	500 7250	500 7250	2000 29000	2000 29000	215,0 8.46	215,0 8.46	1,52 1.01	1,52 1.01
EC850-16	25	25,4 1.00	40,4 1.59	40,4 1.59	500 7250	500 7250	2000 29000	2000 29000	270,0 10.63	270,0 10.63	2,31 1.54	2,31 1.54
EC850-20	31	31,8 1.25	50,9 2.00	50,9 2.00	500 7250	500 7250	2000 29000	2000 29000	380,0 14.96	380,0 14.96	4,01 2.69	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

-40°C to +100°C
(-40°F to +212°F)

Agency listings

MSHA IC-84, DIN 5510

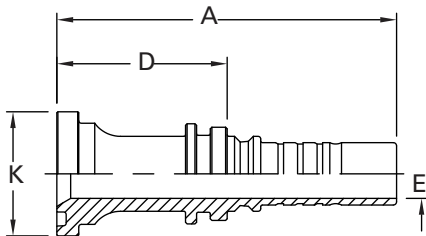
Hose fitting performance matches the hose performance

Eaton didn't stop with just developing the DYNAMAX EC850 hose, we also designed a high performance fitting in order to offer an engineered hose assembly system that will meet and exceed the application requirements. Noted below are the features of our new fitting designs.

- NEW O-ring nipple design: Added innovative and unique new O-ring seal to the -20 size nipples. The O-ring design prevents fluid migration thus providing zero leakage as measured to SAE and EN specifications.
- NEW Code 62 flange design: While meeting all Code 62 international design standards, Eaton has developed improvements on the basic connection with the EC850 Code 62 flange design that includes stress relief characteristics which are capable of withstanding the ultra-high pressures and impulsing of 500 bar hydraulic systems. Eaton Code 62 flange components have been tested and approved at the same performance level as EC850 hose. Use all Eaton components to ensure compatibility and system performance.
- NEW DKO S fitting connection design: While meeting all DKO international design standards, Eaton has improved on the basic connection by developing a more robust design with a hardened swivel nut which provides outstanding performance at 500 bar.
- High strength one-piece nipple design: To meet the required 500 bar pressures, only Eaton one-piece nipples machined using high strength steel are approved for use with DYNAMAX EC850.

Straight SAE Code 62 Flange

Nipple Part# *	Flange Head Dia. K Ø		Hose DN	Hose Size	A		Hose CutOff Factor (D)		E Ø	
	mm	in			mm	in	mm	in	mm	in
1W12FH12	41,3	1.62	19	-12	110,6	4.35	58,6	2.31	15,1	0.59
1W16FH16	47,6	1.88	25	-16	134,0	5.28	67,4	2.65	19,6	0.77
1W20FH20*	54,0	2.13	31	-20	145,2	5.72	70,3	2.77	25,5	1.00



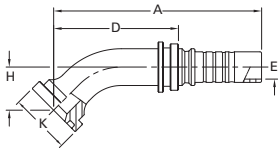
*** Requires separate installation of 2 ea. p/n 05.071-27.30x2.40 O-rings (must be ordered separately). O-rings must be installed with PAG oil (only) prior to crimping.**

DYNAMAX EC850

New high performance fitting designs

45° SAE Code 62 Flange Elbow

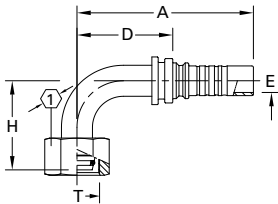
Nipple Part# *	Flange Head Dia. K Ø		Hose DN	Hose Size	A		Hose CutOff Factor (D)		E Ø		H	
	mm	in			mm	in	mm	in	mm	in	mm	in
1W12FHA12	41,3	1.62	19	-12	130,1	5.12	78,1	3.07	15,1	0.59	27,0	1.06
1W16FHA16	47,6	1.88	25	-16	160,6	6.32	94,0	3.70	19,6	0.77	31,0	1.22
1W20FHA20*	54,0	2.13	31	-20	190,0	7.48	115,1	4.53	25,5	1.00	39,0	1.54



* Requires separate installation of 2 ea. p/n 05.071-2730x2.40 O-rings (must be ordered separately). O-rings must be installed with PAG oil (only) prior to crimping.

90° SAE Code 62 Flange Elbow

Nipple Part# *	Flange Head Dia. K Ø		Hose DN	Hose Size	A		Hose CutOff Factor (D)		E Ø		H	
	mm	in			mm	in	mm	in	mm	in	mm	in
1W12FHB12	41,3	1.62	19	-12	124,8	4.91	72,8	2.87	15,1	0.59	59,0	2.32
1W16FHB16	47,6	1.88	25	-16	155,6	6.13	89,0	3.50	19,6	0.77	71,0	2.80
1W20FHB20*	54,0	2.13	31	-20	185,0	7.28	110,1	4.33	25,5	1.00	89,0	3.50



* Requires separate installation of 2 ea. p/n 05.071-2730x2.40 O-rings (must be ordered separately). O-rings must be installed with PAG oil (only) prior to crimping.

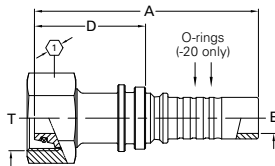
IMPORTANT INFORMATION: Only the listed Eaton Nipples and Sockets are approved and tested to meet the EC850 pressure requirements. Code 62 flange nipples are only qualified with Eaton manufactured flange halves and 4 bolt flanges. For additional configurations, contact Eaton.

DYNAMAX EC850

New high performance fitting designs

Straight DKO Female Swivel, Heavy Duty

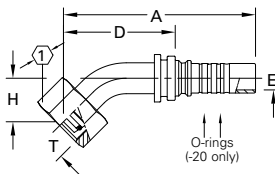
Nipple Part# *	Flange Head Dia. K Ø		Hose DN	Hose Size	A		Hose CutOff Factor (D)		E Ø		①	
	mm	in			mm	in	mm	in	mm	in	mm	in
1W16DH10	M30x2,0	20	16	-10	80,5	3.17	35,6	1.40	12,1	0.48	36,0	1.42
1W20DH12	M36x2,0	25	19	-12	103,2	4.06	51,2	2.02	15,1	0.59	46,0	1.81
1W25DH16	M42x2,0	30	25	-16	120,6	4.75	54,0	2.13	19,6	0.77	50,0	1.97
1W32DH20*	M52x2,0	38	31	-20	134,9	5.31	60,0	2.36	25,5	1.00	60,0	2.36



*** Requires separate installation of 2 ea. p/n 05.071-27.30x2.40 O-rings (must be ordered separately). O-rings must be installed with PAG oil (only) prior to crimping.**

45° DKO Female Swivel, Heavy Duty

Nipple Part# *	Thread T	Tube O.D.	Hose DN	Hose Size	A		Hose CutOff Factor (D)		E Ø		H		①	
					mm	in	mm	in	mm	in	mm	in	mm	in
1W16DHA10	M30x2,0	20	16	-10	112,8	4.44	67,9	2.67	12,1	0.48	31,0	1.21	36,0	1.42
1W20DHA12	M36x2,0	25	19	-12	135,1	5.32	83,1	3.27	15,1	0.59	32,0	1.26	46,0	1.81
1W25DHA16	M42x2,0	30	25	-16	163,6	6.44	97,0	3.82	19,6	0.77	35,0	1.38	50,0	1.97
1W32DHA20*	M52x2,0	38	31	-20	190,0	7.48	115,1	4.53	25,5	1.00	39,0	1.54	60,0	2.36



*** Requires separate installation of 2 ea. p/n 05.071-27.30x2.40 O-rings (must be ordered separately). O-rings must be installed with PAG oil (only) prior to crimping.**

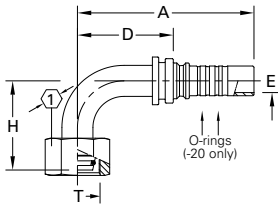
IMPORTANT INFORMATION: Only the listed Eaton Nipples and Sockets are approved and tested to meet the EC850 pressure requirements. Code 62 flange nipples are only qualified with Eaton manufactured flange halves and 4 bolt flanges. For additional configurations, contact Eaton.

DYNAMAX EC850

New high performance fitting designs

90° DKO Female Swivel, Heavy Duty

Nipple Part# *	Thread T	Tube O.D.	Hose DN	Hose Size	A		Hose CutOff Factor (D)		E Ø		H		Ⓢ	
					mm	in	mm	in	mm	in	mm	in	mm	in
1W16DHB10	M30x2,0	20	16	-10	99,2	3.91	54,3	2.14	12,1	0.48	61,5	2.42	36,0	1.42
1W20DHB12	M36x2,0	25	19	-12	124,8	4.91	72,8	2.87	15,1	0.59	76,5	3.01	46,0	1.81
1W25DHB16	M42x2,0	30	25	-16	155,6	6.13	89,0	3.50	19,6	1.77	76,0	2.99	50,0	1.97
1W32DHB20*	M52x2,0	38	31	-20	185,0	7.28	110,1	4.33	25,5	1.00	89,0	3.50	60,0	2.36

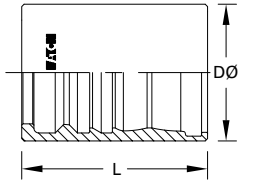


*** Requires separate installation of 2 ea. p/n 05.071-27.30x2.40 O-rings (must be ordered separately). O-rings must be installed with PAG oil (only) prior to crimping.**

DYNAMAX EC850

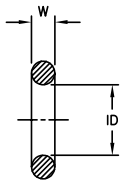
Approved for high pressure applications

Socket



Part #	Hose Size		Length (L)		DØ	
	DN	Dash Size	mm	in	mm	in
1WD10	16	-10	49,1	1.93	35,9	1.41
1WD12	19	-12	57,0	2.24	42,1	1.66
1WD16	25	-16	67,5	2.66	51,4	2.02
1WE20	31	-20	78,7	3.10	63,5	2.50

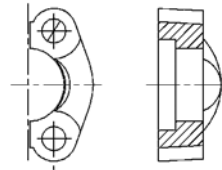
O-ring* (-20 Nipple)



Part #	Hose Size		Length (L)		DØ	
	DN	Dash Size	mm	in	mm	in
05.071-27.30x2.40	31	-20	2,4	0.094	27,3	1.07

Two (2) each required for -20 size nipples.
O-rings must be installed with PAG oil (only) prior to crimping.

Split Flange



Part #	Hose Size	
	DN	Dash Size
FC3425-12-449*	19	-12
GC3425-12**	19	-12
FC3425-16-449*	25	-16
GC3425-16.1**	25	-16
FC3425-20-449*	31	-20
GC3425-20.1**	31	-20

Two (2) each split flange halves required per code 62 flange nipple.

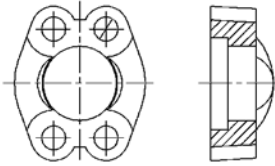
* Flange halves only available in North America. Use "GC" Series P/N outside NA

** Eaton recommends use of metric bolts with a strength class 10.9 according to ISO 898-1

DYNAMAX EC850

Approved for high pressure applications

4 Bolt Flange



Part #	Hose Size	
	DN	Dash Size
GC2453-12**	19	-12
GC2453-16.1**	25	-16
GC2453-20.1**	31	-20

** Eaton recommends use of metric bolts with a strength class 10.9 according to ISO 898-1

Approved Skive Tooling

Internal Skive Tooling Part Numbers



FT1240-150-Size

Part #	Hose Size		Internal Skive Length	
	DN	Dash Size	mm	in
121502755-10	16	-10	10,7	0.421
FT1240-150-12 *** 12150506-12	19	-12	10,0	0.394
FT1240-150-16 *** 12150506-16	25	-16	13,5	0.531
FT1240-150-20 *** 12150466-20	31	-20	14,0	0.551
121502755-10	16	16	16	16

*** Tooling only available in North America. Use other P/N outside NA. Follow Eaton assembly procedures for internal and external skiving.

External Skive Tooling Part Numbers



FT1437-Size

Part #	Hose Size		Internal Skive Length	
	DN	Dash Size	mm	in
FT1437-10	16	-10	38,5	1.52
FT1437-12	19	-12	43,5	1.71
FT1437-16	25	-16	48,5	1.91
FT1437-20	31	-20	56,5	2.22

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