



CONTROLLER-ONE EVOLUTION ESP

Composition

Controller-one Evolution^{ESP} is a combined stem packing composed of expanded graphite rings **Planigraph^{ESP}** and **GR8622^{ESP}** braided graphite rings.

Characteristics


Controller-one Evolution^{ESP} is manufactured with modified **Planigraph^{ESP}** graphite made according to strict guidelines. Maintaining the packing weight is essential in order to meet standards and minimize fugitive emissions in the long term. The excellent sealing capabilities of **Controller-one Evolution^{ESP}** and the reduced fugitive emissions are born from a completely brand-new approach. This material is characterized by a reduced coefficient of friction and low permeability, better than those achievable with the current technology using lubricants, without compromising the chemical integrity of the material.

Controller-one Evolution^{ESP} is a Low Emissions ISO 15848 BH C01/C02 approved graphite packing, providing a valid solution to reduce OEM stock seal types. It can be used for all Oil & Gas, Cyogenic, H₂ and most Chemical services, as well as steam.

Applications

Controller-one Evolution^{ESP} is a graphite stem packing seal designed for low-emission services in industrial valves. It is suitable for use with hydrocarbons, cryogenic, hydrogen, VOCs, VHAPs, non-oxidizing chemical compounds, and steam. **Controller-one Evolution^{ESP}** is rated for up to 500 bar. It is designed to operate under all pressure conditions covered by classes 150 to 2500 lbs, thanks to its special wiper rings, GR8622ESP style (for extreme applications, such as those requiring API 5000 and API 10000 standards, please contact the Carrara Technical Department).

Tech Data

	P bar	lbf/in2	Vm/S	f/pm	pH	T°C	T°F
	500	7500	1	200	0 ÷ 14	-200 ÷ 450 / 650	-320 ÷ 850 / 1200

- Never use the product to the maximum temperature and pressure associated. Consult the manufacturer for further information
- With weakly oxidizing agents and hot air the temperature must be limited to 450 °C
- With steam and non-oxidizing fluids the temperature must be limited to 650 °C
- Graphite and carbon cannot be used with oxidizing fluids



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APPROVALS

- ISO 15848 BH-C01/C02-400°C (750°F)
- Limited detrimental materials and Ash
- Weight Loss API std 622 3rd Ed., EN 14772 S.6.7, FSA-G-604-07 METHOD B
- TQ39 - 50.000 h Target Temperature 408°C
- Fire Test API 607, API 6FA, ISO 10497
- Corrosion Test RT and HT
- MESC 85/203 and 85/204
- H2 Compatible
- PTFE Free
- PFAS Free
- Wet Lubricant Free



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