DAE OPEN FLOW PUMPS

The superior quality of DAE Open Flow Pumps are one key to our success but, more importantly, it is the key to your success in everyday applications. DAE Pumps is always engaged with customers to provide quality hoses for superior performance in the market.

To reach that objective, DAE Pumps invests in high quality raw materials and in an engineered design to perfectly balance strength and elasticity. The result of this effort is the DAE Open Flow Pump portfolio, which add premium performances and a life cycle up to 30% longer* than the competition.

DAE OPEN FLOW PUMP FEATURES

- ✓ Engineered design with varying inner reinforcement layers (from 2 to 6) of braided polyamide are selected based on hose material and size.
- ✓ Outer layer is vulcanized to strict tolerances to ensure perfect compression.
- ✓ Best quality raw materials create an engineered compound to combine optimum mechanical and chemical characteristics.
- ✓ External raw surface (hose is not re-machined after production) retains the lubrication film between the hose and shoe, reducing friction and heat generation to further extend hose life.
- ✓ Available in 7 different material compounds and 16 different sizes to cover a wide range of applications and pump sizes.
- ✓ Unique color code located on the hose to facilitate the material identification.

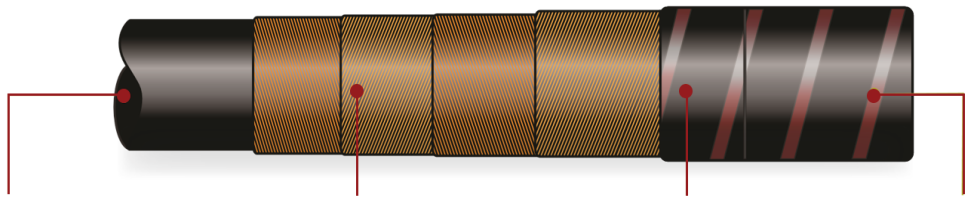
DAE OPEN FLOW PUMPS COMPETITIVE ADVANTAGES

- ✓ Longer life: Up to 30% longer* than competition due to design features listed above.
- ✓ Able to handle shear-sensitive fluids with minimal wear.
- ✓ Highly versatile.
- ✓ Available in different lengths retrofittable with most major competitive pumps.
- ✓ Once retrofitted with a DAE Open Flow Pumps, competitive pumps reduce their TCO (Total Cost of Ownership) thanks to an extended meantime between failures.

LOW-PRESSURE TUBES FOR PEAK® PUMPS

Low-pressure tubes are available for DAE Open Flow Pumps in different materials and with different levels of reinforcement. We can divide low pressure tubes in two families:

- ✓ Non-reinforced tubes – used mainly for very low pressure trans- fer and dosing, can support fluid pressure up to 30 PSI.
- ✓ Reinforced tubes – can support pressures up to 60 PSI and are more suitable for light industrial applications.



Inner liner - available in a variety of materials to ensure optimum life and compatibility

Reinforcement layers (2 - 6) Provides excellent hose life & ultimate wear performance

Cover - Provides excellent chemical resistance & superior quality

Stripe - PColor coded to ease material identification

DAE PUMPS OPEN FLOW PUMP FITTINGS

	Water Treatment, Domestic & Industrial Waste	Ceramic Industry	Mining & Quarries	Building & Construction	Chemical	Food & Beverage	Paint	Pulp & Paper	Agricultural, Biogas & Fertilizer	Max Temp Range (for continuous duty operation)
NR 	Natural Rubber (NR) can be considered a do-all material used in diverse applications; combines superior mechanical properties & provides good chemical compatibility (especially with water-based products & weak bases, acids, glycols, & ketones. Not recommended with hydrocarbons & oxidants in general.									167° F
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
NBR 	Nitrile Butadiene Rubber (NBR) is generally very good with natural and synthetic oils, petroleum-based fluids (non-aromatic). Mechanic- al properties are good, ranked behind NR.									16° F
	✓		✓	✓	✓				✓	
NBR FDA 	Food Grade NBR has the same characteristics as standard NBR but is suitable for contact with food.									16° F
	✓					✓			✓	
EPDM 	Ethylene Propylene Diene Monomer (EPDM) rubber has a very wide chemical compatibility for both acids & caustic applications but is not recommended with hydrocarbons (aromatic or chlorinated) or oils (natural and synthetic). Mechanical properties are comparable to NBR.									185° F
	✓	✓	✓	✓	✓		✓	✓	✓	
HYPALON /CSM 	HYPALON®/CSM has an excellent chemical compatibility to seawater & brine, strong acids, & bases. Hypalon® is also strongly recommended with oxidants, hypochlorite, & alcohols. It is not recommended with hydrocarbons & aromatic solvents. Mechanical properties are very good just slightly less than Natural Rubber.									167° F
	✓		✓		✓				✓	
VITON®/ FKM 	VITON®/FKM, Viton® is a fluorinated synthetic rubber, it has the widest chemical compatibility among with the "rubber family". Can be used with strong acids & bases, aromatic solvents, hydrocarbons, synthetic & natural oils. Viton® has a good resistance to high temperatures but is not recommended to be used with abrasive or heavy-duty applications due to its mean resistance to abrasion & average mechanical properties.									167° F
	✓		✓		✓				✓	
NR FDA 	Food Grade Natural Rubber (NR) has the same characteristics as standard NR but is suitable with contact with food.									167° F
	✓					✓			✓	

Find below the characteristic of more relevant non-reinforced DAE Pumps tubes (for PEAK®only):

	Tygon® A-60-F: extremely flexible tubing resistant to a wide range of food product and detergents.
	Tygon® XL-60: transparent tubing and extremely flexible, resistant to a wide range of fluids, including acids and bases. Not recommended for photosensitive fluids.
	Silicone Rubber: transparent tubing with a smooth inner surface to reduce the risk of particulate entrapment. Silicone tubes can be sterilized with hot water, ethylene oxide, or acetic acid.

HOSES COLOR CODES

Material	Crest® High Pressure Hoses	PEAK® Reinforced Tubes
NR	One white stripe	One green stripe
NBR	One yellow stripe	One red stripe
NBR FDA	One white stripe and one yellow stripe	One white stripe and one red stripe
EPDM	One red stripe	One white stripe
CSM McLaren®	One light blue stripe	One light blue stripe
FKM Viton®	One purple stripe	One purple stripe
NR FDA	FDA double white stripe	One white stripe and one green stripe

*Relative to industry competition in comparable operating environments.