

Composite hoses ABRATEC 400



ABRATEC 400 is specifically designed as a universal hose for suction and discharge of a wide variety of abrasive liquids, as e.g. industrial sludge, as well as solids, like powders, cereals, plastic granules, chips !

This multi-layer thermoplastic hose is designed around several POLYURETHANE liners, supported by a special abrasion resistant Martensitic high chrome stainless steel inner wire and a weather- and abrasion proof outer cover made of polymeric coated polyester fabric.

The outer cover is also available in ELASTAR, a special PU coated fabric with superior UV-, ozone-, sunlight- and weathering-resistance, combined with superior temperature and abrasion characteristics.

All the different layers are wrapped together and tensioned between internal and external wire spirals.



ABRATEC 400 hoses are used for rail and road tanker loading and unloading, storage tanks, silo and in-plant handling. For that purpose they are extremely flexible, easy to handle and bend.

A typical application is the handling of COAL WATER SLURRY FUEL, (CWS or CWSF), a new type of fuel which consist of fine particles of coal suspended in water. The main advantage of this new type of fuel, it can be handled equivalent to liquid fuel or heating oil in place of oil and gas in heating and power plants but reduces harmful emission to the atmosphere. In addition, by converting the coal in to a liquid form, delivery and dispensing of the fuel can be simplified. Usually it consists of 55 to 70% of coal particles and 30 to 45% of water.

The particles typically need to be less than 20 micrometres in diameter. This means that the CWS is particularly abrasive and a special composite hose is necessary to guarantee the right performance.



ABRATEC 400 is manufactured according to the requirements specified by the European Standards EN 13765:2010 Type 3 (BS 5842:1980) and in accordance with the recommendations of NAHAD Guidelines (NAHAD 600/2005).

ABRATEC 400 hoses are 100% antistatic and can be used for suction or discharge. The electric resistance of hose assemblies is less than 1 Ω /m, as required by EN ISO 8031:2009, 4.7. Electrical continuity is achieved by the two wires bonded to the end fittings, conducting accumulated charge and avoiding static flash.

In accordance with the EU-Directive 94/9/EC "ATEX", ABRATEC 400 hoses are produced with a special outer antistatic black cover and ground connection on request !

ABRATEC 400 assemblies are fitted with an extensive range of couplings readily available, externally swaged with Stainless, Galvanized Steel or Aluminium ferrules and are tested at 1 ½ times rated working pressures for safety and reliability, in accordance with EN ISO 1402 (BS 5842:1980 clause 6.4). The securing ferrule, at one end of the hose is permanently marked by engraving, with manufacturer's name, nominal bore, serial number and the test date. Full test certification including Electrical continuity test can be supplied on request.



Code	ABRATEC 400 XZ	ABRATEC 400 XX
Applications	Abrasive liquids and solids	
Colour	Yellow	
Temperature	-40 +100°C	
Inner wire	AISI 400	AISI 400
Outer wire	galv. steel	st. steel

Size		Maximum W.P.		Safety Factor	Bend radius EN/ISO 1746		Weight kg / m	Max length	
mm	Inch	Bar	PSI		mm	Inch		m	Feet
20	¾"	15	200	5:1	75	3	0,78	40	132
25	1"	15	200	5:1	100	4	0,96	40	132
32	1¼"	15	200	5:1	125	5	1,28	40	132
40	1½"	15	200	5:1	140	5 ½	1,50	40	132
50	2"	15	200	5:1	180	7	2,19	40	132
65	2½"	15	200	5:1	220	8 ½	3,13	40	132
75/80	3"	15	200	5:1	180	11	3,80	40	132
100	4"	15	200	5:1	400	16	5,29	40	132
150	6"	15	200	5:1	575	23	12,21	40	132
200	8"	15	200	5:1	800	32	17,14	40	132
250	10"	15	200	5:1	1000	40	24,92	25	82
300	12"	15	200	5:1	1200	48	33,82	25	82

Burst pressure indicated is at ambient temperature. Maximum temperature rating can only be maintained when working within limits of working pressure.

We reserve the right to change specification without prior notice !

