

INDUSTRIAL HOSES 2025



"At Ryco we design, manufacture, and supply premium quality and cutting-edge fluid transfer products, and solutions for a large range of industries around the world."



Our experienced Research & Development team take 2D drawings to 3D models to real life products.



Our world-class hoses, fittings and assembly equipment are manufactured in-house to the highest standards.



We test and validate our products to meet and exceed technical industry standards.

DESIGN

MANUFACTURE

TEST

SUPPLY

INTEGRATED SYSTEMS



We provide the complete solution: hoses, fittings, crimping parameters and assembly equipment for a fully integrated system.



We supply fluid conveyance solutions directly to our customers whenever and wherever they are.

Ryco Hydraulics started manufacturing hoses and fittings in 1946. As the hydraulics industry evolved, the company expanded its range, and the main product line soon became high-pressure hydraulic hose and fittings. Today, Ryco Hydraulics is known for its engineering excellence, customer-focus, and highest quality products which continue to attract new customers, from varied industries right across the world.

With a comprehensive range of hydraulic hoses, hydraulic couplings, industrial hoses, and assembly equipment, Ryco is a global leader in designing, manufacturing, and distributing fluid transfer solutions.

Ryco Hydraulics' products not only meet but exceed industry standards, ensuring maximum performance and reliability. From open-pit and underground mining, to construction, agriculture, marine, forestry and oil & gas industries, our hose assemblies are trusted by clients worldwide.

Whether it's our hoses, fittings, or assembly machines, at Ryco Hydraulics we do more than simply supply a product; we understand our success is dependent on our clients' success, safety, and quality.

With a global presence and a focus on local service, we are dedicated to empowering various industries with reliable, high-performance fluid products and systems tailored to our customer's unique needs.



RYCO INDUSTRIAL HOSES



The Industrial Hose solutions offered in this document form a new chapter in the company's history, where we have taken decades of experience producing some of the most robust, and reliable hydraulic hoses and transferred that expertise to the development of hoses for industrial conveying applications.

The Ryco Industrial Hose range is not just a simple addition to the already extensive range of Ryco hydraulic hoses but is a product sector in and of itself. Our in-house design engineers have ensured that the hose structures provide the perfect blend of pressure resistance, flexibility, and mechanical strength required for each specific application. We offer several different hose types dedicated to conveying specific fluids and materials, and each and every hose is tailored to suit the challenges of that particular application.

FULLY INTEGRATED & CUSTOMIZED SOLUTIONS

The wide range of industrial applications makes it difficult to develop industrialized products for every possible scenario. However, at Ryco Hydraulics we are fully prepared to meet any application challenge that our customers can present us with. Our Design and Production Technology Team are dedicated to working directly with our customers, to ensure that their precise needs are met.

The Ryco Industrial Hose range is designed to work seamlessly with the following Ryco fittings:

- Ferrules
- Bevelled to Weld Fittings
- BSP Fittings
- Flange Fittings

These fittings are available upon request. Please contact your local Ryco Hydraulics representative with your requirements.

INTRODUCTION

RYCO QUALITY ACCREDITATION

Ryco Hydraulics is committed to the objective of zero defects. As a manufacturer of quality hydraulic hose and fittings, Ryco Hydraulics ensures that our products are accredited by independent third party organisations.



ABSAmerican Bureau of Shipping



DNV-GLDNV GL Group



Lloyd's Register



MEDMarine Equipment Directive



USCGUS Coast Guard



Dept. of Transport (USA)



GOST-R GOST-R



BUREAU VERITAS

Bureau Veritas



RINARegistro Italiano Navale



KR Korean Register



CLASSNK Nippon Kaiji Kyokai



MDG 41
Mining Design Guide







SAFETY GUIDE

Ryco hose and fittings products must be assembled in strict accordance with Ryco instructions and limitations. Don't mix and match: always use Ryco original couplings and hoses. Ryco hose, couplings and assembling machines are tested as an effective and reliable system. The use of different products and machines will affect and nullify any representation and/or warranty on products, their features and/or performance that may has been provided, and may cause premature hose failures, property damage, serious injury or death for which Ryco does not assume any responsibility and/or liability at any title whatsoever. Inside our Ryco Crimp App, you can find the only official technical crimping parameters relating to our products and/or services. Therefore, please be sure to download the latest version of our App.

RYCO MAKES NO REPRESENTATIONS AND/OR WARRANTIES, EXPRESS OR IMPLIED, AND ASSUMES NO RESPONSIBILITY AND/OR LIABILITY FOR ANY LOSS OR DAMAGE, WHETHER DIRECT, INDIRECT, CONSEQUENTIAL OR INCIDENTAL WHICH MIGHT ARISE OUT FROM, OR IN CONNECTION WITH, IMPROPER AND/OR INCORRECT USE OF ITS PRODUCTS AND/OR ASSEMBLY EQUIPMENT OR FROM ANY USE OF CRIMPED HOSE ASSEMBLIES NOT PRODUCED FROM GENUINE RYCO HOSE FITTINGS, HOSE AND EQUIPMENT, AND, IN GENERAL, NOT IN ACCORDANCE WITH OUR PROCESS SPECIFICATIONS FOR EACH SPECIFIC PRODUCT AND/OR ASSEMBLY EQUIPMENT.

DISCLAIMER

We reserve the right to modify or discontinue any product and/or related service described in this documentation without notice. No product is warranted as being fit for a particular purpose and we do not assume any liability in connection with the use of our products other than those technically approved by us for specific products. This document supersedes all previous versions and previously issued documentation.

For more information, please contact us at via our dedicated Contact Form: www.ryco-hydraulics.com/contact-us/





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HOSES

НС	SE SERIES		RECOMMENDED	MATERI. TUBE	AL TYPE COVER	HOSE STRUCTURE
WA	TER, STEAM &	AIR HOSES				
9	AIR & WATER/12 D		WATER & AIR HOSE	SBR	SBR	HIGH TENSILE SYNTHETIC CORD
<u>10</u>	AIR & WATER/12 SD		WATER & AIR HOSE	SBR	SBR	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE
<u>11</u>	AIR & WATER/21 D		WATER & AIR HOSE, HEAVY DUTY	SBR	SBR	HIGH TENSILE SYNTHETIC CORD
<u>12</u>	AIR & WATER/21 SD		WATER & AIR HOSE, HEAVY DUTY	SBR	SBR	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE
<u>13</u>	SNOW GUNS/60		WATER HOSE FOR SNOW GUNS	EPDM	EPDM	HIGH TENSILE SYNTHETIC CORD
<u>14</u>	SNOW GUNS/100		WATER HOSE FOR SNOW GUNS	EPDM	EPDM	HIGH TENSILE STEEL WIRE SPIRALS
<u>15</u>	WATER LAYFLAT 5/10		LAYFLAT HOSE FOR GENERAL PURPOSE WATER	SBR	SBR	HIGH TENSILE SYNTHETIC CORD
<u>16</u>	FIREFIGHT		ABS APPROVED FIRE SUPPRESSION HOSE	CR	CR	HIGH TENSILE STEEL WIRE SPIRALS; GLASS-FIBRE
<u>17</u>	AIR COMPRESSOR		AIR COMPRESSOR HOSE, HEAVY DUTY	SBR	NBR/PVC	TWO WIRE BRAIDS OR MULTIPLE PIECES OF HIGH TENSILE STEEL WIRE BRAIDS
<u>18</u>	AIR & WATER COMPRESSOR/27		WATER & AIR COMPRESSOR HOSE, HEAVY DUTY	SBR	NBR/PVC	HIGH TENSILE TEXTILE LAYERS
<u>19</u>	PNEUMATIC/40		HEAVY DUTY PNEUMATIC TOOLS	ЕРМ	EPDM	HIGH TENSILE SYNTHETIC CORD
<u>20</u>	STEAM/18		STEAM & VAPOUR HOSE	ЕРМ	ЕРМ	HIGH TENSILE STEEL WIRE BRAIDS
<u>21</u>	STEAM/18 OR		STEAM & VAPOUR HOSE	ЕРМ	ЕРМ	HIGH TENSILE STEEL WIRE BRAIDS
<u>22</u>	STEAM/7		STEAM & VAPOUR HOSE FOR FOOD INDUSTRY CLEANING	ЕРМ	EPDM	HIGH TENSILE SYNTHETIC CORD
<u>23</u>	COOLING/5		INDUSTRY & GENERAL PURPOSE COOLING HOSE	VMQ	VMQ	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE
<u>24</u>	COOLING/SD		HIGH FLEXIBILITY WATER GLYCOL COOLING HOSE	EPDM	EPDM	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE



ЦС	SE SERIES		RECOMMENDED	MATERI	AL TYPE	HOSE STRUCTURE
ПС	JSE SERIES		RECOMMENDED	TUBE	COVER	TIOSE STRUCTURE
ANT	I-STATIC FUE	_ HOSES				
<u>25</u>	FUEL/5 SDC	W L	FUEL HOSE WITH HIGH FLEXIBILITY	NBR	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>26</u>	FUEL/10 D	XIII	FUEL & OIL HOSE	NBR	SBR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES
<u>27</u>	FUEL/10 SD	X	FUEL & OIL HOSE	NBR	SBR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>28</u>	FUEL/10 R4	ZXIII.	FUEL & OIL HOSE	NBR	SBR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>29</u>	FUEL/16 D	and the same of th	EN 12115 FUEL & MINERAL OIL HOSE	NBR	CR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES
<u>30</u>	FUEL/16 SD	The state of the s	EN 12115 FUEL & MINERAL OIL HOSE	NBR	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>31</u>	FUEL/20 D EN ISO 1825-B		EN ISO 1825 TYPE B FUEL HOSE FOR AIRCRAFT REFUELLING	NBR	CR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES
<u>32</u>	FUEL/20 D EN ISO 1825-C		EN ISO 1825 TYPE C FUEL HOSE FOR AIRCRAFT REFUELLING	NBR	CR	HIGH TENSILE SYNTHETIC CORD
<u>33</u>	FUEL/20 SD EN ISO 1825-E		EN ISO 1825 TYPE E FUEL HOSE FOR AIRCRAFT REFUELLING	NBR	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>34</u>	FUEL/21 D	XIII	FUEL & OIL HOSE, HEAVY DUTY	NBR	SBR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES
<u>35</u>	FUEL/21 SD	XI.	FUEL & OIL HOSE, HEAVY DUTY	NBR	SBR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>36</u>	FUEL/D	7.10	EN 1360 TYPE 1 FUEL & MINERAL OIL HOSE	NBR	CR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES
<u>37</u>	FUEL/SD		EN 1360 TYPE 2 FUEL & MINERAL OIL HOSE	NBR	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>38</u>	FTRUCK/16 D		EN 1761 TYPE D HOSE FOR TRUCK SYSTEMS	NBR	CR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES
<u>39</u>	FTRUCK/16 SD	XI.	EN 1761 TYPE SD HOSE FOR TRUCK SYSTEMS	NBR	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>40</u>	FUEL/17 SDC	W. Barrier	FUEL DELIVERY WITH HIGH FLEXIBILITY	NBR	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES

ЦС	SE SERIES		RECOMMENDED	MATERI	AL TYPE	HOSE STRUCTURE			
ПС	JSE SERIES		RECOMMENDED	TUBE	COVER	HUSE STRUCTURE			
ANT	I-STATIC FUEL	. HOSES (CONT.)							
<u>41</u>	FTANKER/10 SD		FUEL DELIVERY WITH HIGH ABRASION RESISTANCE	NBR	NBR/PVC	HIGH TENSILE SYNTHETIC CORD, THERMOPLASTIC OUTER HELIX & COPPER GROUNDING WIRES			
<u>42</u>	DRILLING MUD/28 D		DRILLING MUDS, OIL & ABRASIVE SLURRIES	X-NBR	CR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES			
<u>43</u>	LPG/25 D	The state of the s	LPG HOSE	NBR	CR	HIGH TENSILE SYNTHETIC CORD			
<u>44</u>	LPG/25 SD		LPG HOSE	NBR	CR	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE			
СНЕ	MICAL HOSES								
<u>45</u>	CHEMICAL/10 D	The state of the s	FKM HOSE FOR AGGRESSIVE CHEMICALS	FKM	CR	HIGH TENSILE SYNTHETIC CORD			
<u>46</u>	CHEMICAL/10 SD		FKM HOSE FOR AGGRESSIVE CHEMICALS	FKM	CR	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE			
<u>47</u>	CHEMICAL/16 SDE EN 12115	XTX	EN 12115 ANTI-STATIC EPDM HOSE FOR CHEMICAL PRODUCTS	EPDM	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES			
<u>48</u>	CHEMICAL/16 SDA EN 12115	wXIII	EN 12115 ANTI-STATIC UHMWPE HOSE FOR CHEMICAL PRODUCTS	UHMWPE	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES			
<u>49</u>	CHEMICAL/16 SD EN 12115		EN 12115 FEP HOSE FOR CHEMICAL PRODUCTS	FEP	CR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES			
F00	D & BEVERAG	E HOSES							
<u>50</u>	DISTILLERY/12 SD		BEER, WINE & ALCOHOL HOSE	BIIR	EPDM	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE			
<u>51</u>	DISTILLERY/12 SDC		BEER, WINE & ALCOHOL HOSE	BIIR	EPDM	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE			
<u>52</u>	FATFOOD/10 SD		MULTI-PURPOSE LIQUID FOOD HOSE	EPDM	EPDM	HIGH TENSILE SYNTHETIC CORD & 2 STEEL HELIX BODY WIRES			
<u>53</u>	LIQUIDFOOD/10 SD		MILK & FATTY FOODS HOSE	NBR	NBR	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE			
<u>54</u>	DRYFOOD Layflat/10	and the same of th	LAYFLAT HOSE FOR DRY FOODS	NR	CR	HIGH TENSILE SYNTHETIC CORD & COPPER GROUNDING WIRES			



Н	OSE SERIES		RECOMMENDED	MATERI TUBE	AL TYPE COVER	HOSE STRUCTURE
ABF	ASIVE HOSES					
<u>55</u>	ABRASIVE LAYFLAT	A STATE OF THE PARTY OF THE PAR	LAYFLAT HOSE FOR ABRASIVE DRY MATERIALS	NR/SBR	SBR/NR/ PVC	HIGH TENSILE SYNTHETIC CORD
<u>56</u>	SANDBLASTING/21 D		SANDBLASTING & ABRASIVE FLUID HOSE	NR/SBR	NR/SBR	HIGH TENSILE SYNTHETIC CORD
<u>57</u>	BULK MATERIAL/10 D	X and the same of	ABRASIVE FLUID HOSE, HEAVY DUTY	NR/SBR	NR/SBR	HIGH TENSILE SYNTHETIC CORD,COPPER GROUNDING WIRES
<u>58</u>	BULK MATERIAL/10 SD	XIII	ABRASIVE FLUID HOSE, HEAVY DUTY	NR/SBR	NR/SBR	HIGH TENSILE SYNTHETIC CORD, STEEL HELIX BODY WIRE & COPPER GROUNDING WIRES
<u>59</u>	REVERSE CYCLE DRILLING/35 SD		REVERSE CYCLE DRILLING HOSE	NR/SBR	NR/SBR	HIGH TENSILE SYNTHETIC CORD & STEEL HELIX BODY WIRE
<u>60</u>	PLASTER/40 D	and the same of th	PLASTER SPRAYING HOSE	NR/SBR	NR/SBR	HIGH TENSILE SYNTHETIC CORD
<u>61</u>	CONCRETE/100 D		HIGH-PRESSURE CONCRETE PUMPING HOSE	NR/SBR	NR/SBR	HIGH TENSILE STEEL CORD

HOSES

HOSES INDEX BY WORKING PRESSURE

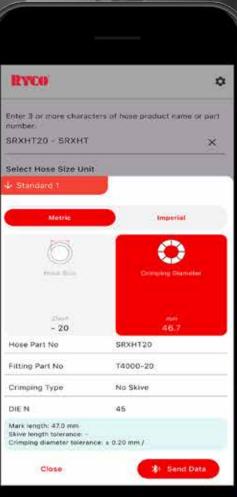
DN	6	8	10	12	16	19	22	25	31	35	38	40	45	51	63	76	89	90	102	127	152	203	254	305	457	609
Inch	1/4"	5/16″	3/8″	1/2″	5/8″	3/4"	7/8″	1"	11/4″	13/8″	11/2″	19/16″	13/4″	2"	21/2"	3"	31/2″	335/64"	4"	5"	6"	8"	10″	12"	18"	24"
ABRASIVE LAYFLAT																		6	4	4	4	4				
DRY FOOD Layflat/10																			10	10						
BULK MATERIAL/10 D														10		10										
BULK MATERIAL/10 SD														10	10	10			10	10						
REVERSE CYCLE DRILLING/35 SD															35	35			35							
PLASTER/40 D						40		40	40	40	40			40												
CONCRETE/100 D														100	100	100			100	100						
PNEUMATIC/40														40		40			40							
AIR COMPRESSOR						45		45	45		45			45	45	45			35							
AIR & WATER COMPRESSOR/27				27		27		27	27		27			27		27										
DISTILLERY/12 SD						12		12	12		12			12	12	12			12							
DISTILLERY/12 SDC									12		12			12	12	12			12							
CHEMICAL/10 D	10	10	10	10	10	10		10	10		10			10												
CHEMICAL/10 SD						10		10	10		10			10	10	10			10							
CHEMICAL/16 SD EN 12115				16		16		16	16		16			16												
CHEMICAL/16 SDA EN 12115						16		16	16		16			16	16	16			16							
CHEMICAL/16 SDE EN 12115						16		16	16		16			16	16	16			16							
COOLING/5					5	5		5	5		5			5		5			5							
COOLING/SD					5	5	5	5	5		5															
FIREFIGHT														20		20			20	20	20					
FUEL/D				16	16	16		16	16		16															
FUEL/SD						16		16	16		16															
FUEL/17 SDC						17		17	17		17			17	17	17			17		17					
FUEL/5 SDC						5		5	5		5			5	5	5			5							
FUEL/10 D						10		10	10		10			10	10	10										
FUEL/10 SD						10		10	10		10			10	10	10			10	10	10			10		
FUEL/10 R4						21		17	14		11	10	10	10	10	10			10	10						



HOSES INDEX BY WORKING PRESSURE

DN	6	8	10	12	16	19	22	25	31	35	38	40	45	51	63	76	89	90	102	127	152	203	254	305	457	609
Inch	1/4″	5/16″	3/8"	1/2″	5/8″	3/4"	7/8″	1″	11/4″	13/8″	11/2″	19/16″	13/4"	2"	21/2"	3"	31/2″	335/64″	4"	5"	6"	8"	10"	12"	18"	24"
FUEL/16 D						16		16	16		16			16	16	16			16							
FUEL/16 SD						16		16	16		16			16	16	16			16							
FUEL/20 D En ISO 1825-B						20		20	20		20			20	20	20			20							
FUEL/20 D EN ISO 1825-C						20		20	20		20			20	20	20			20							
FUEL/20 D EN ISO 1825-E						20		20	20		20			20	20	20			20							
FUEL/21 D						21		21	21		21			21	21	21										
FUEL/21 SD														21		21			21		21	21				
FTANKER/10 SD														10	10	10			10							
FTRUCK/16 D						16		16	16		16			16	16	16			16	16	16					
FTRUCK/16 SD						16		16	16		16			16	16	16			16	16	16					
SNOW GUNS/100								100	100		100															
SNOW GUNS/60								60	60		60															
LIQUIDFOOD/10 SD						10		10	10		10			10	10	10			10							
DRILLING MUD/28 D																28			28	28	28					
FATFOOD/10 SD											10			10	10	10			10							
AIR & WATER/12 D				12		12		12	12		12			12	12	12										
AIR & WATER/12 SD						12		12	12		12			12	12	12			12		12					
AIR & WATER/21 D				21		21		21	21		21			21	21	21										
AIR & WATER/21 SD														21		21			21		21					
LPG/25 D				25	25	25		25	25		25			25	25	25			25							
LPG/25 SD				25	25	25		25	25		25			25	25	25			25							
SANDBLASTING/21 D						21		21	21		21			21												
STEAM/18				18	18	18		18	18		18			18	18	18			18							
STEAM/18 OR				18	18	18		18	18		18			18	18	18			18							
STEAM/7			7	7	7	7		7																		
WATER LAYFLAT 5/10														10		10			10		10	10	10	10	5	5





RYCOCRIMP

YOUR SOURCE FOR THE MOST UP TO DATE CRIMP SETTINGS

Stay up-to-date with Ryco's Crimp App, your go-to resource for accurate, efficient, and safe hydraulic hose crimping. Designed with professionals in mind, this innovative app grants instant access to the latest crimp specifications, ensuring precision, and reliability in every assembly.

Whether in the workshop or on the go, the Ryco Crimp App provides real-time access to an extensive database of hose and fitting specifications, helping to reduce downtime and boost productivity. With seamless Bluetooth integration, users can connect to compatible devices for an even more streamlined experience.

Key Features of the Ryco Crimp App:

- Instant Access: to the latest Ryco crimp specifications.
- Bluetooth Integration: for seamless connectivity.
- Easy-to-Use Interface: for quick navigation.

Download the Ryco Crimp App Now!

Enhance your workflow and reduce downtime with the Ryco Crimp App, download it today!







AIR & WATER/12 D WATER & AIR HOSE



TUBE:

Black, smooth, synthetic SBR rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black synthetic SBR rubber, long lasting, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

Softwall delivery structure.
Highly robust hose structure.
Long lasting in severe applications.
Long length assemblies available - Max length: 60m.

APPLICATION & FLUIDS:

Water or compressed air, to be used in mining, construction, shipyards, etc.

TEMPERATURE RANGE:

From -35° C to $+80^{\circ}$ C (-31° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

AIR & WA WATER & PART NO	AIR HOSE		NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	T BEN RE RADII		AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AW12D8	12	1/2"	20.6	0.81	12	170	36	520	90	3.54	0,21	0.14	SR+D08000 Series
AW12D12	19	3/4"	31.0	1.22	12	170	36	520	110	4.33	0,45	0.30	SR+D08000 Series
AW12D16	25	1″	37.4	1.47	12	170	36	520	135	5.31	0,56	0.38	SR+D08000 Series
AW12D20	31	1.1/4"	44.0	1.73	12	170	36	520	165	6.50	0,72	0.48	SR+D08000 Series
AW12D24	38	1.1/2"	52.1	2.05	12	170	36	520	205	8.07	0,77	0.52	SR+D08000 Series
AW12D32	51	2"	65.3	2.57	12	170	36	520	260	10.24	1,02	0.69	SR+D08000 Series
AW12D40	63	2.1/2"	78.5	3.09	12	170	36	520	360	14.17	1,52	1.02	SR+D08000 Series
AW12D48	76	3"	94.1	3.70	12	12 170		520	470 18.50		1,84 1.24		SR+D08000 Series

AIR & WATER/12 SD WATER & AIR HOSE



TUBE:

Black, smooth, synthetic SBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER

Black synthetic SBR rubber, long lasting, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Water or compressed air, to be used in mining, construction, shipyards, etc.

TEMPERATURE RANGE:

From -35°C to +80°C (-31°F to +176°F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

AIR & WA	TER/12S	D : Size		INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AW12SD12	19	3/4"	28.1	1.11	12	170	36	520	100	3.94	0,38	0.26	SR+D08000 Series
AW12SD16	25	1″	34.5	1.36	12	170	36	520	125	4.92	0,48	0.32	SR+D08000 Series
AW12SD20	31	1.1/4"	41.1	1.62	12	170	36	520	150	5.91	0,60	0.41	SR+D08000 Series
AW12SD24	38	1.1/2"	47.5	1.87	12	170	36	520	190	7.48	0,70	0.47	SR+D08000 Series
AW12SD32	51	2"	61.3	2.41	12	170	36	520	250	9.84	1,12	0.75	SR+D08000 Series
AW12SD40	63	2.1/2"	74.4	2.93	12	170	36	520	350	13.78	1,60	1.07	SR+D08000 Series
AW12SD48	76	3″	87.5	3.44	12	170	36	520	450	17.72	2,20	1.48	SR+D08000 Series
AW12SD64	102	4"	114.3	4.50	12	170	36	520	500	19.69	3,33	2.24	SR+D08000 Series
AW12SD96	152	6"	170.0	6.69	12	170	36	520	760	29.92	6,60	4.48	Market Fittings



AIR & WATER/21 D WATER & AIR HOSE HEAVY DUTY



TUBE:

Black, smooth, synthetic SBR rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black synthetic SBR rubber, long lasting, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

- · Softwall delivery structure.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Water or compressed air, to be used inheavy duty mining, construction, shipyards, etc.

TEMPERATURE RANGE:

From -35° C to $+80^{\circ}$ C (-31° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

AIR & W.	ATER/21 [HOSE) : SIZE		INAL E OD	WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AW21D8	12	1/2"	20.6	0.81	21	300	63	910	90	3.54	0,21	0.14	SR+D08000 Series
AW21D12	19	3/4"	31.6	1.24	21	300	63	910	110	4.33	0,46	0.31	SR+D08000 Series
AW21D16	25	1″	38.2	1.50	21	300	63	910	135	5.31	0,52	0.35	SR+D08000 Series
AW21D20	31	1.1/4"	45.0	1.77	21	300	63	910	165	6.5	0,66	0.44	SR+D08000 Series
AW21D24	38	1.1/2"	51.6	2.03	21	300	63	910	205	8.07	0,93	0.62	SR+D08000 Series
AW21D32	51	2"	65.0	2.56	21	300	63	910	260	10.24	1,22	0.82	SR+D08000 Series
AW21D40	63	2.1/2"	78.9	3.11	21	300	63	910	360	14.17	1,58	1.06	SR+D08000 Series
AW21D48	76	3″	94.0	3.70	21	300	63	910	470	18.5	1,84	1.24	SR+D08000 Series

AIR & WATER/21 SD WATER & AIR HOSE HEAVY DUTY



TURF:

Black, smooth, synthetic SBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER

Black synthetic SBR rubber, long lasting, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Water or compressed air, to be used in heavy duty mining, construction, shipyards, etc.

TEMPERATURE RANGE:

From -35° C to $+80^{\circ}$ C (-31° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

AIR & WA	NTER/21 S HOSE	D E SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	MINI BE RAD		AVE	N RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AW21SD32	51	2"	61.3	2.41	21	300	63	910	250	9.84	1,13	0.76	SR+D08000 Series
AW21SD48	76	3"	88.3	3.48	21	300	63	910	450	17.72	2,28	1.53	SR+D08000 Series
AW21SD64	102	4"	115.1	4.53	21	300	63	910	500	19.69	3,37	2.27	SR+D08000 Series
AW21SD96	152	6"	168.0	6.61	21	300	63	910	760	29.92	6,80	4.57	Market Fittings



SNOW GUNS/60 WATER HOSE FOR SNOW GUNS



TUBE:

Black EPDM rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Blue, synthetic EPDM rubber; abrasion, weathering and ozone resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m

APPLICATION & FLUIDS:

Delivery hose for water in snow gun equipment.

TEMPERATURE RANGE:

From -40° C to $+120^{\circ}$ C (-40° F to $+248^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

SNOW PART NO	GUNS/60 HOSE	E SIZE	NOM HOS	INAL E OD		IMUM KING SURE	MINI BUI PRES		BE	MUM ND DIUS	AVEF WEI	RAGE	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
SG6016	25	1"	39.0	1.54	60	900	180	2,700	100	3.94	0,81	0.54	SR+D08000 Series
SG6020	31	1.1/4"	46.0	1.81	60	900	180	2,700	128	5.04	0, 99	0.66	SR+D08000 Series
SG6024	38	1.1/2"	52.0	2.05	60	900	180	2,700	152	5.98	1,14	0.76	SR+D08000 Series

SNOW GUNS/100 WATER HOSE FOR SNOW GUNS



TUBE:

Black EPDM rubber.

REINFORCEMENT:

High tensile steel spirals.

COVER:

Blue, synthetic EPDM rubber; abrasion, weathering and ozone resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Delivery hose for water in snow gun equipment.

TEMPERATURE RANGE:

From -40° C to $+120^{\circ}$ C (-40° F to $+248^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 2.5:1 safety factor (maximum working pressure to minimum burst pressure).

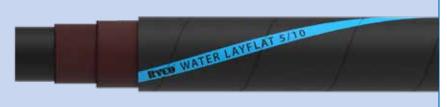
COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

SNOW	GUNS/100		Now	INAL		MUM KING		MUM RST	MINI BE		V	V	COUPLING SERIES
PART NO	HOSE	SIZE		E OD		SURE		SURE	RAD		WEI		TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
SG10016	25	1"	40.0	1.57	100	1,500	250	3,750	110	4.33	1,30	0.87	SR+D08000 Series
SG10020	31	1.1/4"	47.0	1.85	100	1,500	250	3,750	140	5.51	1,74	1.16	SR+D08000 Series
SG10024	38	1.1/2"	54.0	2.13	100	1,500	250	3,750	170	6.69	2,25	1.50	SR+D08000 Series

WATER LAYFLAT 5/10 LAYFLAT DELIVERY HOSE FOR GENERAL PURPOSE WATER



TUBE:

Black SBR rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black synthetic SBR rubber, abrasion and weathering resistant.

KEY FEATURES:

- · Layflat delivery hose.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- · Long lasting in severe applications.
- Long length assemblies available: 10 bar: Max length: 61m (DN51 - DN152); 40m (DN203); 20m (DN254 - DN305);

5 bar: Max length: 12m.

APPLICATION & FLUIDS:

Water, liquid fertilizer and non-corrosive inert fluids for irrigation Submersible pumps and general industrial applications.

TEMPERATURE RANGE:

From -30° C to $+80^{\circ}$ C (-22° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

Market Fittings.

WATER LA		10 : SIZE		INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	V RAGE GHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
WL1032	51	2"	59.0	2.32	10	150	30	450	-	-	0,58	0.39	Market Fittings
WL1048	76	3"	84.0	3.3	10	150	30	450	-	-	1,18	0.79	Market Fittings
WL1064	102	4"	111.0	4.37	10	150	30	450	-	-	1,57	1.06	Market Fittings
WL1096	152	6"	162.0	6.37	10	150	30	450	-	-	2,65	1.78	Market Fittings
WL10128	203	8"	215.0	8.46	10	150	30	450	-	-	5,32	3.58	Market Fittings
WL10160	254	10"	267.0	10.51	10	150	30	450	-	-	7,18	4.83	Market Fittings
WL10192	305	12'	319.0	12.56	10	150	30	450	-	-	9,26	6.22	Market Fittings
WL5288	457	18"	476.0	18.74	5	75	15	225	-	-	18,40	12.37	Market Fittings
WL5384	609	24"	635.0	25.00	5	75	15	225	-	-	31,20	20.97	Market Fittings

FIREFIGHT

FIRE SUPPRESSION HOSE ABS APPROVED FOR OFFSHORE



TUBE:

Black CR rubber.

REINFORCEMENT:

High tensile steel spirals.

COVER:

Glass-fibre layers, co-vulcanized with an external layer of red CR rubber; fire, sea-water, abrasion and ozone resistant (black cover available on request).

KEY FEATURES:

- · Hardwall delivery structure.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Delivery hose for fire-water deluge hose applications on oil rigs.

TEMPERATURE RANGE:

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

WORKING PRESSURE:

Maximum working pressures are based on 5:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 15540:1999 (800°C X 30') / ABS approval (required).

COUPLINGS:

Market Fittings.

FIRE	FIGHT HOSE	SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SSURE	BE	MUM ND DIUS	ت	V RAGE GHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FF32	51	2"	80.0	3.15	20	300	100	1,500	420	16.54	4,90	3.29	Market Fittings
FF48	76	3"	108.0	4.25	20	300	100	1,500	535	21.06	7,50	5.04	Market Fittings
FF64	102	4"	134.0	5.28	20	300	100	1,500	640	25.20	11,00	7.39	Market Fittings
FF80	127	5"	160.0	6.30	20	300	100	1,500	1,100	43.31	13,40	9.01	Market Fittings
FF96	152	6"	185.0	7.28	20	300	100	1,500	1,210	47.64	15,70	10.55	Market Fittings



AIR COMPRESSOR AIR COMPRESSOR HOSE HEAVY DUTY



TUBE:

Black, smooth, synthetic SBR rubber.

REINFORCEMENT:

Two wire braids or multiple piles of high tensile steel wire spirals.

COVER.

Yellow synthetic NBR/PVC rubber, long lasting, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

- · Heavy duty softwall delivery structure.
- · Robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

High pressure compressed air and oil traces, to be used in mining, construction, etc.

Typically used in compressed air systems and power transmission.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

AIR COM	IPRESSOF HOSE	R E SIZE		INAL E OD	WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	۲	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AC12	19	3/4"	31.4	1.24	45	650	180	2,610	95	3.74	0, 78	0.52	SR+D08000 Series
AC16	25	1″	37.8	1.49	45	650	180	2,610	125	4.92	1,01	0.68	SR+D08000 Series
AC20	31	1.1/4"	44.8	1.76	45	650	180	2,610	160	6.30	1,28	0.86	SR+D08000 Series
AC24	38	1.1/2"	51.2	2.02	45	650	180	2,610	190	7.48	1,53	1.03	SR+D08000 Series
AC32	51	2"	65.0	2.56	45	650	180	2,610	255	10.04	2,27	1.53	SR+D08000 Series
AC40	63	2.1/2"	79.4	3.13	35	500	140	2,030	315	12.40	2,91	1.95	SR+D08000 Series
AC48	76	3"	94.2	3.71	35	500	140	2,030	380	14.96	4,06	2.73	SR+D08000 Series
AC64	102	4"	122.0	4.80	35	500	140	2,030	510	20.08	5,80	3.85	SR+D08000 Series

AIR & WATER COMPRESSOR/27

WATER & AIR
COMPRESSOR HOSE
HEAVY DUTY



TUBE:

Black, synthetic SBR rubber, resistant to oil traces.

REINFORCEMENT:

High tensile textile layers.

COVER:

Yellow synthetic NBR/PVC rubber, long lasting, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

- · Softwall delivery structure.
- · Highly robust heavy duty hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Water or compressed air with oil traces, to be used in mining, construction, etc.

TEMPERATURE RANGE:

From -35°C to +80°C (-31°F to +176°F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

AIR & WATER C	ı	50R/27 E SIZE	NOM HOS	INAL E OD	WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	ت ا	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AC278	12	1/2"	20.6	0.81	27	400	81	1,175	100	3.93	0,24	0.16	SR+D08000 Series
AC2712	19	3/4"	30.3	1.19	27	400	81	1,175	150	5.90	0,46	0.31	SR+D08000 Series
AC2716	25	1″	36.8	1.45	27	400	81	1,175	185	7.28	0,58	0.39	SR+D08000 Series
AC2720	31	1.1/4"	43.3	1.70	27	400	81	1,175	320	12.59	0,74	0.50	SR+D08000 Series
AC2724	38	1.1/2"	48.9	1.93	27	400	81	1,175	380	14.96	0,89	0.60	SR+D08000 Series
AC2732	51	2"	62.1	2.44	27	400	81	1,175	500	19.68	1,19	0.80	SR+D08000 Series
AC2748	76	3"	88.5	3.48	27	400	81	1,175	750	29.52	1,98	1.33	SR+D08000 Series



PNEUMATIC/40

HEAVY DUTY PNEUMATIC TOOLS IN RAILWAYS, ROAD CONSTRUCTION, MINING, TUNNELLING ETC.



TUBE:

Black, EPM rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black EPDM rubber, abrasion and weathering resistant (yellow cover available on request). Cover is pin-pricked.

KEY FEATURES:

- · Hardwall delivery structure.
- Compact and flexible.
- Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Delivery hose for high temperature compressed air suitable for heavy duty pneumatic tools in road construction, railway works, tunnelling and mining.

TEMPERATURE RANGE:

From -30° C to $+ 160^{\circ}$ C (-22° F to $+320^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

PNEU	MATIC/40 HOSE	SIZE	NOM HOS		WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	۲	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
PN4032	51	2"	70.0	2.75	40	600	120	1,800	500	19.69	1,93	1.30	SR+D08000 Series
PN4048	76	3"	100.0	3.94	40	600	120	1,800	740	29.13	3,75	2.52	SR+D08000 Series
PN4064	102	4"	128.0	5.05	40	600	120	1,800	970	38.19	5,12	3.44	SR+D08000 Series

STEAM/18 STEAM & VAPOUR HOSE



TUBE:

Black EPM rubber.

REINFORCEMENT:

High tensile steel reinforcement.

COVER:

Red synthetic EPM pink-pricked rubber, abrasion, weathering and ozone resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 40m (DN12 to DN16); 61m (DN19 to DN102).

APPLICATION & FLUIDS:

Delivery of high pressure saturated steam. Suitable for steam cleaning of tanks and pipelines in the petrochemical industry.

TEMPERATURE RANGE:

From -40° C to $+210^{\circ}$ C (-40° F to $+410^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 10:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

ISO 6134 - Type 2 Class A Grade M.

COUPLINGS:

Market Fittings.

STE/ PART NO	AM/18 Hose	E SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SSURE	BE	MUM ND DIUS		V RAGE GHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
ST188	12	1/2"	25.0	0.98	18	270	180	2,700	120	4.72	0,53	0.35	Market Fittings
ST1810	16	5/8"	30.0	1.18	18	270	180	2,700	155	6.10	0,75	0.50	Market Fittings
ST1812	19	3/4"	33.0	1.30	18	270	180	2,700	185	7.28	0,78	0.52	Market Fittings
ST1816	25	1"	40.0	1.57	18	270	180	2,700	240	9.45	1,03	0.69	Market Fittings
ST1820	31	1.1/4"	48.0	1.89	18	270	180	2,700	330	12.99	1,41	0.94	Market Fittings
ST1824	38	1.1/2"	54.0	2.13	18	270	180	2,700	390	15.35	1,78	1.19	Market Fittings
ST1832	51	2"	69.0	2.72	18	270	180	2,700	520	20.47	2,58	1.72	Market Fittings
ST1840	63	2.1/2"	81.0	3.19	18	270	180	2,700	640	25.20	3,16	2.11	Market Fittings
ST1848	76	3"	94.0	3.70	18	270	180	2,700	745	29.33	4,02	2.68	Market Fittings
ST1864	102	4"	122.0	4.80	18	270	180	2,700	990	38.98	6,22	4.15	Market Fittings



STEAM/18 OR STEAM & VAPOUR HOSE



TUBE:

Black EPM rubber.

REINFORCEMENT:

High tensile steel reinforcement.

COVER.

Red synthetic EPM pink-pricked rubber, oil, abrasion, weathering and ozone resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 40m (DN12 to DN16); 61m (DN19 to DN102).

APPLICATION & FLUIDS:

Delivery of high pressure saturated steam Suitable for steam cleaning of tanks and pipelines in the petrochemical industry.

TEMPERATURE RANGE:

From -40° C to $+210^{\circ}$ C (-40° F to $+410^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 10:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

ISO 6134 - Type 2 Class B Grade M.

COUPLINGS:

Market Fittings.

STEAN PART NO	4/18 OR HOSE	: SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	NAGE GHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
ST180R8	12	1/2"	25.0	0.98	18	270	180	2,700	120	4.72	0,53	0.35	Market Fittings
ST180R10	16	5/8"	30.0	1.18	18	270	180	2,700	155	6.10	0, 75	0.50	Market Fittings
ST180R12	19	3/4"	33.0	1.30	18	270	180	2,700	185	7.28	0, 78	0.52	Market Fittings
ST180R16	25	1"	40.0	1.57	18	270	180	2,700	240	9.45	1,03	0.69	Market Fittings
ST180R20	31	1.1/4"	48.0	1.89	18	270	180	2,700	330	12.99	1,41	0.94	Market Fittings
ST180R24	38	1.1/2"	54.0	2.13	18	270	180	2,700	390	15.35	1,78	1.19	Market Fittings
ST180R32	51	2"	69.0	2.72	18	270	180	2,700	520	20.47	2,58	1.72	Market Fittings
ST180R40	63	2.1/2"	81.0	3.19	18	270	180	2,700	640	25.2	3,16	2.11	Market Fittings
ST180R48	76	3"	94.0	3.70	18	270	180	2,700	745	29.33	4,02	2.68	Market Fittings
ST180R64	102	4"	122.0	4.80	18	270	180	2,700	990	38.98	6,22	4.15	Market Fittings

STEAM/7

STEAM & VAPOUR HOSE FOR FOOD INDUSTRY CLEANING



TUBE:

White EPM rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Blue synthetic EPDM rubber, abrasion, weathering and ozone resistant. Cover is pin-pricked.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 40m.

APPLICATION & FLUIDS:

Potable hot water mixed with steam and detergents Suitable for washdown and sterilization in the food industry.

TEMPERATURE RANGE:

From -40°C to + 170°C (-40°F to +338°F).

WORKING PRESSURE:

Maximum working pressures are based on 10:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

FDA Title 21, art. 177.2600 for aqueous foods.

COUPLINGS:

Market Fittings.

STE PART NO	AM/7 HOSE	SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	MINI BE RAI		AVE	N RAGE IGHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
ST76	10	3/8"	20.0	0.79	7	105	70	1,050	55	2.17	0,28	0.19	Market Fittings
ST78	12	1/2"	23.0	0.91	7	105	70	1,050	65	2.56	0,37	0.25	Market Fittings
ST710	16	5/8"	26.0	1.02	7	105	70	1,050	85	3.35	0,43	0.29	Market Fittings
ST712	19	3/4"	31.0	1.22	7	105	70	1,050	100	3.94	0,58	0.39	Market Fittings
ST716	25	1"	37.0	1.46	7	105	70	1,050	125	4.92	0,75	0.50	Market Fittings



COOLING/5

INDUSTRY & GENERAL PURPOSE WATER COOLING HOSE



TUBE:

Red, VMQ silicone.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER.

Red VMQ sliicone, high temperature and weathering resistant.

KEY FEATURES:

- Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 40m (DN16 to DN76); 20m (DN102).

APPLICATION & FLUIDS:

Suction & delivery of hot air and water in engine cooling systems.

TEMPERATURE RANGE:

From -60° C to $+200^{\circ}$ C (-76° F to $+392^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

COOLING/5 PART NO HOSE SIZE		NOMINAL HOSE OD		WOR	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		N RAGE IGHT	COUPLING SERIES TWO PIECE	
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CL510	16	5/8"	26.0	1.02	5	75	15	225	80	3.15	0,40	0.27	SR+D08000 Series
CL512	19	3/4"	29.0	1.14	5	75	15	225	95	3.74	0,45	0.30	SR+D08000 Series
CL516	25	1"	35.0	1.38	5	75	15	225	125	4.92	0,58	0.39	SR+D08000 Series
CL520	31	1.1/4"	42.0	1.65	5	75	15	225	160	6.30	0,68	0.45	SR+D08000 Series
CL524	38	1.1/2"	48.0	1.89	5	75	15	225	190	7.48	0,83	0.55	SR+D08000 Series
CL532	51	2"	61.0	2.40	5	75	15	225	260	10.24	1,30	0.87	SR+D08000 Series
CL548	76	3"	96.0	3.78	5	75	15	225	380	14.96	1,90	1.27	SR+D08000 Series
CL564	102	4"	114.0	4.49	5	75	15	225	480	18.90	2,81	1.87	SR+D08000 Series

COOLING/SD

HIGH FLEXIBILITY WATER GLYCOL COOLING SUCTION & DELIVERY HOSE



TUBE:

EPDM rubber.

REINFORCEMENT:

High tensile synthetic cord and steel helix body wire.

COVER

Environmental resistant synthetic rubber, flat corrugated cover style.

KEY FEATURES:

- Hardwall hose used for the suction and delivery of water-glycol cooling lines at high temperature.
- Flat corrugated (grooved) cover for improved flexibility and reduced bend radius.
- Long lasting in severe applications.
- · Resistance to Vacuum.
- · Max. length: 40m.

APPLICATION & FLUIDS:

Suction and Delivery hose for hot water and coolant fluids, applied in engine cooling and heating systems.

Radiator hose.

Outstanding flexibility, installation in very narrow spaces. Water and water-glycol solutions.

TEMPERATURE RANGE:

From -40° C to $+ 125^{\circ}$ C (-40° F to $+257^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

COOLING/SD PART NO HOSE SIZE		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE	
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CLSD10	16	5/8"	26.3	1.03	5	75	20	290	33	1.29	0,45	0.30	SR+D08000 Series
CLSD12	19	3/4"	29.3	1.15	5	75	20	290	36	1.41	0,50	0.34	SR+D08000 Series
CLSD14	22	7/8"	34.5	1.37	5	75	20	290	36	1.41	0,54	0.36	SR+D08000 Series
CLSD16	25	1"	37.0	1.46	5	75	20	290	36	1.41	0,58	0.39	SR+D08000 Series
CLSD20	31	1.1/4"	44.0	1.73	5	75	20	290	50	1.96	0,73	0.49	SR+D08000 Series
CLSD24	38	1.1/2"	50.5	1.99	5	75	20	290	70	2.76	0,98	0.66	SR+D08000 Series



FUEL/5 SDC

FUEL SUCTION & DELIVERY HOSE WITH HIGH FLEXIBILITY



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic, normal corrugated CR rubber, anti-static (R<106 Ohm/m), oil, fuel, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- Normal corrugated cover offers lowest bend radius in category.
- Compact, lightweight and extremely flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 40m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30°C to + 100°C (-22°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL,	FUEL/5 SDC PART NO HOSE SIZE		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F5SDC12	19	3/4"	30.0	1.18	5	75	15	225	20	0.79	0,50	0.33	SR+D08000 Series
F5SDC16	25	1"	36.0	1.42	5	75	15	225	25	0.98	0,61	0.41	SR+D08000 Series
F5SDC20	31	1.1/4"	43.0	1.69	5	75	15	225	30	1.18	0,74	0.49	SR+D08000 Series
F5SDC24	38	1.1/2"	49.0	1.93	5	75	15	225	40	1.57	0,83	0.55	SR+D08000 Series
F5SDC32	51	2"	62.0	2.44	5	75	15	225	50	1.97	1,15	0.77	SR+D08000 Series
F5SDC40	63	2.1/2"	76.0	2.99	5	75	15	225	65	2.56	1,37	0.91	SR+D08000 Series
F5SDC48	76	3"	88.0	3.46	5	75	15	225	75	2.95	1,81	1.21	SR+D08000 Series
F5SDC64	102	4"	115.0	4.53	5	75	15	225	110	4.33	2,70	1.80	SR+D08000 Series

FUEL & OIL HOSE



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord and 2 crossing copper wires for grounding.

COVER:

Black synthetic SBR rubber, long lasting, weathering and ozone resistant.

KEY FEATURES:

- · Softwall delivery structure.
- · Highly robust hose structure.
- Long lasting in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Fuels, oils and diesel with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+90^{\circ}$ C (-22° F to $+194^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL/10 D PART NO HOSE SIZE		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE	
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F10D12	19	3/4"	31.4	1.24	10	150	31	450	90	3.54	0,50	0.34	SR+D08000 Series
F10D16	25	1″	37.8	1.49	10	150	31	450	115	4.53	0,62	0.42	SR+D08000 Series
F10D20	31	1.1/4"	44.4	1.75	10	150	31	450	150	5.91	0,78	0.53	SR+D08000 Series
F10D24	38	1.1/2"	52.5	2.07	10	150	31	450	180	7.09	0,85	0.58	SR+D08000 Series
F10D32	51	2"	65.3	2.57	10	150	31	450	240	9.45	1,12	0.76	SR+D08000 Series
F10D40	63	2.1/2"	78.5	3.09	10	150	31	450	300	11.81	1,67	1.13	SR+D08000 Series
F10D48	76	3"	94.3	3.71	10	150	31	450	380	14.96	2,04	1.37	SR+D08000 Series



FUEL & OIL HOSE



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic SBR rubber, long lasting, weathering and ozone resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- · Highly robust hose structure.
- · Long lasting in severe applications.
- · Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Fuels, oils and diesel with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30°C to +90°C (-22°F to +194°F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

FUEL/10 SD PART NO HOSE SIZE			NOMINAL HOSE OD PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE		
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F10SD12	19	3/4"	28.1	1.11	10	150	31	450	80	3.15	0,41	0.28	SR+D08000 Series
F10SD16	25	1″	34.5	1.36	10	150	31	450	105	4.13	0,52	0.35	SR+D08000 Series
F10SD20	31	1.1/4"	41.1	1.62	10	150	31	450	135	5.31	0,63	0.43	SR+D08000 Series
F10SD24	38	1.1/2"	47.5	1.87	10	150	31	450	165	6.50	0,76	0.51	SR+D08000 Series
F10SD32	51	2"	61.3	2.41	10	150	31	450	230	9.06	1,21	0.82	SR+D08000 Series
F10SD40	63	2.1/2"	74.4	2.93	10	150	31	450	290	11.42	1,72	1.15	SR+D08000 Series
F10SD48	76	3"	87.5	3.44	10	150	31	450	360	14.17	2,38	1.60	SR+D08000 Series
F10SD64	102	4"	114.9	4.52	10	150	31	450	450	17.72	3,53	2.37	SR+D08000 Series
F10SD80	127	5"	142.0	5.59	10	150	31	450	510	20.08	5,80	3.90	Market Fittings
F10SD96	152	6"	167.0	6.57	10	150	31	450	610	24.02	7,20	4.85	Market Fittings
F10SD192	305	12"	323.0	12.72	10	150	31	450	1,200	47.24	10,20	6.80	Market Fittings

FUEL & OIL HOSE



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

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Black synthetic SBR rubber, long lasting, weathering and ozone and oil resistant.

KEY FEATURES:

- Suitable as SAE j517 Type 100R4.
- · Hardwall suction and delivery structure.
- Compact, lightweight and flexible.
- Highly robust hose structure.
- Long lasting in severe applications.
- · Long length assemblies available Max length: 60m.
- Vacuum performance: -0.9 bar.

APPLICATION & FLUIDS:

Fuels and oils with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+90^{\circ}$ C (-22° F to $+194^{\circ}$ F).

Hydraulic oils temperature range: -40°C to 100°C (-40°F to 212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

Exceeds SAE 100R4.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

FUEL/10 R4 PART NO HOSE SIZE		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE	
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F10R412	19	3/4"	29.5	1.16	21	300	84	1,218	80	3.14	0,53	0.36	SR+D08000 Series
F10R416	25	1"	36.0	1.41	17	240	70	1,015	100	3.93	0,66	0.44	SR+D08000 Series
F10R420	31	1.1/4"	42.5	1.67	14	200	56	812	130	5.11	0,81	0.54	SR+D08000 Series
F10R424	38	1.1/2"	49.5	1.94	11	160	44	638	170	6.69	1,05	0.71	SR+D08000 Series
F10R425	40	1.9/16"	50.0	1.97	10	150	40	580	170	6.69	1,28	0.85	Market Fittings
F10R428	45	1.3/4"	56.0	2.20	10	150	40	580	180	7.09	1,49	0.99	Market Fittings
F10R432	51	2"	61.5	2.42	10	150	40	580	200	7.87	1,21	0.82	SR+D08000 Series
F10R440	63	2.1/2"	74.5	2.93	10	150	40	580	250	9.84	1,72	1.16	SR+D08000 Series
F10R448	76	3"	88.5	3.48	10	150	40	580	300	11.81	2,50	1.68	SR+D08000 Series
F10R464	102	4"	116.0	4.56	10	150	40	580	400	15.74	3,60	2.42	SR+D08000 Series
F10R480	127	5"	144.0	5.67	10	150	40	580	510	20.08	5,36	3.57	Market Fittings



FUEL/16 D
FUEL & MINERAL OIL
DELIVERY HOSE
EN 12115



TUBE:

Black anti-static NBR rubber.

REINFORCEMENT:

High tensile synthetic cord and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<1G Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

Cover compound is tested an approved according to EN 60079-0:2012 ($R \le 109 \text{ Ohm/m}$).

Hose structure designed to assure and maintain the requirements for the ATEX working conditions.

TEMPERATURE RANGE:

From -30° C to $+80^{\circ}$ C (-22° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 12115 (Grade Ω/T) / TRbF; EN 60079-0.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL/16 D PART NO HOSE SIZE		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE	
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F16D12	19	3/4"	31.0	1.22	16	240	64	960	125	4.92	0,60	0.40	SR+D08000 Series
F16D16	25	1"	37.0	1.46	16	240	64	960	150	5.91	0,89	0.59	SR+D08000 Series
F16D20	31	1.1/4"	44.0	1.73	16	240	64	960	175	6.89	1,00	0.67	SR+D08000 Series
F16D24	38	1.1/2"	51.0	2.01	16	240	64	960	225	8.86	1,35	0.90	SR+D08000 Series
F16D32	51	2"	67.0	2.64	16	240	64	960	275	10.83	2,00	1.33	SR+D08000 Series
F16D40	63	2.1/2"	80.0	3.15	16	240	64	960	300	11.81	2,50	1.67	SR+D08000 Series
F16D48	76	3"	92.0	3.62	16	240	64	960	350	13.78	2,85	1.90	SR+D08000 Series
F16D64	102	4"	122.0	4.80	16	240	64	960	450	17.72	4,15	2.77	SR+D08000 Series

FUEL/16 SD

FUEL & MINERAL OIL SUCTION & DELIVERY HOSE EN 12115



TUBE:

Black anti-static NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<1G Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

Cover compound is tested an approved according to EN 60079-0:2012 ($R \le 109 \text{ Ohm/m}$).

Hose structure designed to assure and maintain the requirements for the ATEX working conditions.

TEMPERATURE RANGE:

From -30° C to $+80^{\circ}$ C (-22° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 12115 (Grade Ω/T) / TRbF; EN 60079-0.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL/16 SD PART NO HOSE SIZE		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE	
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F16SD12	19	3/4"	31.0	1.22	16	240	64	960	125	4.92	0,70	0.47	SR+D08000 Series
F16SD16	25	1"	37.0	1.46	16	240	64	960	150	5.91	0,90	0.60	SR+D08000 Series
F16SD20	31	1.1/4"	44.0	1.73	16	240	64	960	175	6.89	1,20	0.80	SR+D08000 Series
F16SD24	38	1.1/2"	51.0	2.01	16	240	64	960	225	8.86	1,50	1.00	SR+D08000 Series
F16SD32	51	2"	67.0	2.64	16	240	64	960	275	10.83	2,30	1.53	SR+D08000 Series
F16SD40	63	2.1/2"	80.0	3.15	16	240	64	960	300	11.81	2,80	1.87	SR+D08000 Series
F16SD48	76	3"	92.0	3.62	16	240	64	960	350	13.78	3,30	2.20	SR+D08000 Series
F16SD64	102	4"	118.0	4.65	12	180	48	720	450	17.72	4,70	3.13	SR+D08000 Series



FUEL/20 D EN ISO 1825-B

FUEL DELIVERY AIRCRAFT GROUND REFUELLING



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static, chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Aircraft ground refuelling

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN ISO 1825 Type B / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL/20 D I		25-B E SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SSURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F20BD12	19	3/4"	29.0	1.14	20	300	80	1,200	113	4.45	0,52	0.35	SR+D08000 Series
F20BD16	25	1"	38.0	1.50	20	300	80	1,200	150	5.91	0,84	0.56	SR+D08000 Series
F20BD20	31	1.1/4"	45.0	1.77	20	300	80	1,200	200	7.87	1,00	0.67	SR+D08000 Series
F20BD24	38	1.1/2"	51.0	2.01	20	300	80	1,200	230	9.06	1,16	0.77	SR+D08000 Series
F20BD32	51	2"	65.0	2.56	20	300	80	1,200	305	12.01	1,70	1.13	SR+D08000 Series
F20BD40	63	2.1/2"	79.0	3.11	20	300	80	1,200	390	15.35	2,07	1.38	SR+D08000 Series
F20BD48	76	3"	92.0	3.62	20	300	80	1,200	460	18.11	2,56	1.71	SR+D08000 Series
F20BD64	102	4"	120.0	4.72	20	300	80	1,200	610	24.02	3,74	2.49	SR+D08000 Series

FUEL/20 D EN ISO 1825-C

FUEL DELIVERY AIRCRAFT GROUND REFUELLING



TUBE:

Black NBR conductive rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<106 Ohm.m), chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Aircraft ground refuelling

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN ISO 1825 Type C / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL/20 D E PART NO		5-C : SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F20CD12	19	3/4"	29.0	1.14	20	300	80	1,200	113	4.45	0,52	0.35	SR+D08000 Series
F20CD16	25	1"	38.0	1.50	20	300	80	1,200	150	5.91	0,84	0.56	SR+D08000 Series
F20CD20	31	1.1/4"	45.0	1.77	20	300	80	1,200	200	7.87	1,00	0.67	SR+D08000 Series
F20CD24	38	1.1/2"	51.0	2.01	20	300	80	1,200	230	9.06	1,16	0.77	SR+D08000 Series
F20CD32	51	2"	65.0	2.56	20	300	80	1,200	305	12.01	1,70	1.13	SR+D08000 Series
F20CD40	63	2.1/2"	79.0	3.11	20	300	80	1,200	390	15.35	2,07	1.38	SR+D08000 Series
F20CD48	76	3"	92.0	3.62	20	300	80	1,200	460	18.11	2,56	1.71	SR+D08000 Series
F20CD64	102	4"	120.0	4.72	20	300	80	1,200	610	24.02	3,74	2.49	SR+D08000 Series



FUEL/20 SD EN ISO 1825-E

FUEL SUCTION & DELIVERY AIRCRAFT GROUND REFUELLING



TUBE:

Black NBR anti-static rubber.

REINFORCEMENT:

High tensile synthetic cord and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<106 Ohm.m), chemical, ozone and weathering resistant.

KEY FEATURES:

- Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Aircraft ground refuelling.

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN ISO 1825 Type E / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEL/20 D I		25-E E SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	۲	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F20ED12	19	3/4"	31.0	1.22	20	300	80	1,200	85	3.35	0,69	0.46	SR+D08000 Series
F20ED16	25	1"	39.0	1.54	20	300	80	1,200	115	4.53	0, 97	0.65	SR+D08000 Series
F20ED20	31	1.1/4"	46.0	1.81	20	300	80	1,200	150	5.91	1,22	0.81	SR+D08000 Series
F20ED24	38	1.1/2"	53.0	2.09	20	300	80	1,200	180	7.09	1,59	1.06	SR+D08000 Series
F20ED32	51	2"	67.0	2.64	20	300	80	1,200	250	9.84	2,32	1.55	SR+D08000 Series
F20ED40	63	2.1/2"	81.0	3.19	20	300	80	1,200	325	12.80	2,86	1.91	SR+D08000 Series
F20ED48	76	3"	95.0	3.74	20	300	80	1,200	400	15.75	3,70	2.47	SR+D08000 Series
F20ED64	102	4"	123.0	4.84	20	300	80	1,200	550	21.65	5,17	3.45	SR+D08000 Series

FUEL & OIL HOSE HEAVY DUTY



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with 2 crossing copper wires for grounding.

COVER:

Black synthetic SBR rubber, long lasting, ozone and weathering resistant.

KEY FEATURES:

- · Softwall delivery structure.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Fuels, oils, & diesel with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+90^{\circ}$ C (-22° F to $+194^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUEI PART NO	_/21 D H0SE	: SIZE		INAL E OD	WOR	IMUM KING SSURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F21D12	19	3/4"	31.4	1.24	21	300	63	910	90	3.54	0,50	0.34	SR+D08000 Series
F21D16	25	1″	38.2	1.50	21	300	63	910	115	4.53	0,57	0.39	SR+D08000 Series
F21D20	31	1.1/4"	45.0	1.77	21	300	63	910	150	5.91	0,72	0.49	SR+D08000 Series
F21D24	38	1.1/2"	51.6	2.03	21	300	63	910	180	7.09	1,02	0.69	SR+D08000 Series
F21D32	51	2″	62.1	2.44	21	300	63	910	240	9.45	1,29	0.87	SR+D08000 Series
F21D40	63	2.1/2"	78.2	3.08	21	300	63	910	300	11.81	1,74	1.17	SR+D08000 Series
F21D48	76	3″	88.9	3.50	21	300	63	910	380	14.96	2,03	1.37	SR+D08000 Series



FUEL & OIL HOSE HEAVY DUTY



TUBE:

NBR rubber, abrasion resistant, thick tube.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic SBR rubber, long lasting, ozone and weathering resistant.

KEY FEATURES:

- Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Fuels, oils, & diesel with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+90^{\circ}$ C (-22° F to $+194^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

FUEL PART NO	./21 SD H0SE	SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE		MUM ND DIUS	۲	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F21SD32	51	2"	62.1	2.44	21	300	63	910	230	9.06	1,28	0.86	SR+D08000 Series
F21SD48	76	3"	88.9	3.50	21	300	63	910	360	14.17	2,49	1.67	SR+D08000 Series
F21SD64	102	4"	115.1	4.53	21	300	63	910	510	20.08	3,63	2.44	SR+D08000 Series
F21SD96	152	6"	170.0	6.69	21	300	63	910	610	24.02	8,25	5.55	Market Fittings
F21SD128	203	8"	225.0	8.86	21	300	63	910	800	31.50	12,30	8.28	Market Fittings

FUEL/D

FUEL & MINERAL OIL DELIVERY EN 1360 TYPE 1



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<1G Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 1360 Type 1.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUI PART NO	EL/D HOSE	SIZE		INAL E OD	WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	N RAGE GHT	CCOUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FD8	12	1/2"	22.0	0.87	16	240	48	720	60	2.36	0,34	0.23	SR+D08000 Series
FD10	16	5/8"	26.0	1.02	16	240	48	720	80	3.15	0,48	0.32	SR+D08000 Series
FD12	19	3/4"	30.0	1.18	16	240	48	720	100	3.94	0,53	0.35	SR+D08000 Series
FD16	25	1"	38.0	1.50	16	240	48	720	150	5.91	0,74	0.49	SR+D08000 Series
FD20	31	1.1/4"	45.0	1.77	16	240	48	720	175	6.89	1,10	0.73	SR+D08000 Series
FD24	38	1.1/2"	51.0	2.01	16	240	48	720	225	8.86	1,24	0.83	SR+D08000 Series



FUEL/SD

FUEL & MINERAL OIL SUCTION & DELIVERY EN 1360 TYPE 1



TUBE:

Black anti-static NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static, chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 1360 Type 2 / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FUE PART NO	L/SD HOSE	E SIZE	NOM HOS	INAL E OD	MAXI WOR PRES	KING	BUI	MUM RST SURE	MINI BE RAI		۲	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FSD12	19	3/4"	30.0	1.18	16	240	48	720	100	3.94	0,63	0.42	SR+D08000 Series
FSD16	25	1"	38.0	1.50	16	240	48	720	150	5.91	0,93	0.62	SR+D08000 Series
FSD20	31	1.1/4"	45.0	1.77	16	240	48	720	175	6.89	1,18	0.79	SR+D08000 Series
FSD24	38	1.1/2"	51.0	2.01	16	240	48	720	225	8.86	1,45	0.97	SR+D08000 Series

FTRUCK/16 D

FUEL & MINERAL OIL
DELIVERY HOSE FOR TRUCK
SYSTEMS
EN 1761 TYPE D



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static, chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 1761 Type D.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

FTRUC	:K/16 D HOSE	: SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SSURE	BE	MUM ND DIUS		W PERAGE PEIGHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FT16D12	19	3/4"	31.0	1.22	16	240	48	720	125	4.92	0,63	0.42	SR+D08000 Series
FT16D16	25	1"	37.0	1.46	16	240	48	720	150	5.91	0,73	0.49	SR+D08000 Series
FT16D20	31	1.1/4"	44.0	1.73	16	240	48	720	175	6.89	0,94	0.63	SR+D08000 Series
FT16D24	38	1.1/2"	51.0	2.01	16	240	48	720	225	8.86	1,19	0.79	SR+D08000 Series
FT16D32	51	2"	67.0	2.64	16	240	48	720	275	10.83	2,00	1.33	SR+D08000 Series
FT16D40	63	2.1/2"	79.0	3.11	16	240	48	720	300	11.81	2,24	1.49	SR+D08000 Series
FT16D48	76	3"	92.0	3.62	16	240	48	720	350	13.78	2,73	1.82	SR+D08000 Series
FT16D64	102	4"	118.0	4.65	16	240	48	720	450	17.72	3,70	2.47	SR+D08000 Series
FT16D80	127	5"	145.0	5.71	16	240	48	720	635	25.00	4,82	3.21	Market Fittings
FT16D96	152	6"	172.0	6.77	16	240	48	720	750	29.53	6,14	4.09	Market Fittings



FTRUCK/16 SD

FUEL & MINERAL OIL SUCTION & DELIVERY HOSE FOR TRUCK SYSTEMS EN 1761 TYPE SD



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static, chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 50%.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 1761 Type SD.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

FTRUC PART NO	K/16 SD HOSE	E SIZE	NOM HOS		MAXI WOR PRES		BU	MUM RST SURE	BE	MUM ND DIUS	V AVEF WEI	RAGE	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FT16SD12	19	3/4"	31.0	1.22	16	240	48	720	125	4.92	0,67	0.45	SR+D08000 Series
FT16SD16	25	1"	37.0	1.46	16	240	48	720	150	5.91	0,81	0.54	SR+D08000 Series
FT16SD20	31	1.1/4"	44.0	1.73	16	240	48	720	175	6.89	1,04	0.69	SR+D08000 Series
FT16SD24	38	1.1/2"	51.0	2.01	16	240	48	720	225	8.86	1,38	0.92	SR+D08000 Series
FT16SD32	51	2"	67.0	2.64	16	240	48	720	275	10.83	2,22	1.48	SR+D08000 Series
FT16SD40	63	2.1/2"	79.0	3.11	16	240	48	720	300	11.81	2,63	1.75	SR+D08000 Series
FT16SD48	76	3"	92.0	3.62	16	240	48	720	350	13.78	3,38	2.25	SR+D08000 Series
FT16SD64	102	4"	118.0	4.65	16	240	48	720	450	17.72	4,42	2.95	SR+D08000 Series
FT16SD80	127	5"	145.0	5.71	16	240	48	720	635	25.00	5,80	3.87	Market Fittings
FT16SD96	152	6"	172.0	6.77	16	240	48	720	750	29.53	8,15	5.43	Market Fittings

FUEL/17 SDC

FUEL SUCTION & DELIVERY HOSE WITH HIGH FLEXIBILITY



TUBE:

Black NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and copper wire for grounding.

COVER:

Black synthetic, normal corrugated CR rubber, anti-static (R<106 Ohm/m), oil, fuel, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- Normal corrugated cover offers lowest bend radius in category.
- Compact, lightweight and extremely flexible.
- · Outstanding abrasion resistance.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 40m.

APPLICATION & FLUIDS:

Fuels, oils, petroleum & its derivatives with aromatic content up to 60%.

TEMPERATURE RANGE:

From -30°C to +100°C (-22°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

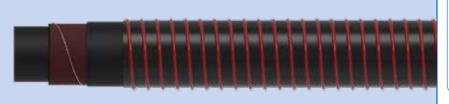
SR + D08000 Series. Market Fittings.

FUEL/ PART NO	17 SDC HOSE	E SIZE	NOM HOS	INAL E OD	WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
F17SDC12	19	3/4"	31.0	1.22	17	255	68	1,020	19	0.75	0,67	0.45	SR+D08000 Series
F17SDC16	25	1"	37.0	1.46	17	255	68	1,020	25	0.98	0,84	0.56	SR+D08000 Series
F17SDC20	31	1.1/4"	44.0	1.73	17	255	68	1,020	32	1.26	0,98	0.65	SR+D08000 Series
F17SDC24	38	1.1/2"	49.0	1.93	17	255	68	1,020	38	1.50	1,12	0.75	SR+D08000 Series
F17SDC32	51	2"	64.0	2.48	17	255	68	1,020	51	2.01	1,48	0.99	SR+D08000 Series
F17SDC40	63	2.1/2"	77.0	3.03	15	225	60	900	63	2.48	1,95	1.30	SR+D08000 Series
F17SDC48	76	3"	89.0	3.50	15	225	60	900	76	2.99	2,15	1.43	SR+D08000 Series
F17SDC64	102	4"	117.0	4.61	10	150	40	600	102	4.02	3,00	2.00	SR+D08000 Series
F17SDC96	152	6"	170.0	6.69	10	150	40	600	152	5.98	5,70	3.80	Market Fittings



FTANKER/10 SD

FUEL & MINERAL OIL SUCTION & DELIVERY HOSE



TUBE:

Black anti-static NBR rubber.

REINFORCEMENT:

High tensile synthetic cord and copper wire for grounding.

COVER.

Black, smooth, glossy NBR/PVC rubber with red thermoplastic spiral, resistant to abrasion, ozone and weathering.

KEY FEATURES:

- Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Extreme abrasion resistance.
- Designed for tankers.
- · Long length assemblies available Max length: 40m.

APPLICATION & FLUIDS:

Suction & delivery hose for mineral oils, diesel fuel and gasoline with aromatic contents up to 50%.

Very light and flexible.

Extraordinarily resistant to abrasion.

Ideal for fuel distribution company road tankers.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

Market Fittings.

FTANKE PART NO		: SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS		W ZERAGE ZEIGHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FT10SD32	51	2"	60.0	2.36	10	150	30	450	110	4.33	1,55	1.05	Market Fittings
FT10SD40	63	2.1/2"	73.5	2.89	10	150	30	450	138	5.43	1,97	1.33	Market Fittings
FT10SD48	76	3"	86.0	3.39	10	150	30	450	170	6.69	2,25	1.52	Market Fittings
FT10SD64	102	4"	116.0	4.57	10	150	30	450	230	9.06	3,00	2.02	Market Fittings

Refer to the Ryco Crimp App for the latest crimping parameters.

Remarks

Hose wall thickness: DN 51: 4.5mm; DN 63 & DN 76: 5.0mm; DN 102: 7.0mm

Red thermoplastic spiral diameter: DN 51 & DN 63: 6mm; DN 76 & DN 102: 8mm

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DRILLING MUD/28 D

DELIVERY HOSE FOR DRILLING MUDS, OIL & ABRASIVE SLURRIES



TUBE:

Black X-NBR rubber.

REINFORCEMENT:

High tensile synthetic cord with 2 crossing copper wires for grounding.

COVER:

Black CR rubber, flame retardant, oil, grease, sea water and ozone resistance.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Delivery of petroleum muds, drilling rig services and crude oil with aromatic contents up to 50%.

Fracking operations in oilfields.

TEMPERATURE RANGE:

From -30° C to $+80^{\circ}$ C (-22° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

Market Fittings.

DRILLING PART NO		D E SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
DM28D48	76	3"	96.0	3.78	28	400	112	1,600	559	22.01	3,70	2.49	Market Fittings
DM28D64	102	4"	124.0	4.88	28	400	112	1,600	762	30.00	4,90	3.29	Market Fittings
DM28D80	127	5"	153.0	6.02	28	400	112	1,600	1,118	44.02	7,00	4.70	Market Fittings
DM28D96	152	6"	178.0	7.01	28	400	112	1,600	1,524	60.00	8,40	5.65	Market Fittings



LPG/25 D DELIVERY HOSE FOR LPG



TUBE:

Black NBR conductive rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black, pin-pricked CR rubber, fire-proof, anti-static (R<106 Ohm/m), oil, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 40m (DN12 DN19); 50m (DN25 DN 51); 61m (DN 63 DN 102).

APPLICATION & FLUIDS:

Delivery hose for LPG.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 1762 Type D / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

LPG PART NO	/25 D H0SE	: SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	_	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
LPG25D8	12	1/2"	23.0	0.91	25	375	100	1,500	100	3.94	0,39	0.26	SR+D08000 Series
LPG25D10	16	5/8"	26.0	1.02	25	375	100	1,500	120	4.72	0,47	0.31	SR+D08000 Series
LPG25D12	19	3/4"	31.0	1.22	25	375	100	1,500	160	6.30	0,63	0.42	SR+D08000 Series
LPG25D16	25	1"	38.0	1.50	25	375	100	1,500	200	7.87	0,84	0.56	SR+D08000 Series
LPG25D20	31	1.1/4"	45.0	1.77	25	375	100	1,500	250	9.84	1,05	0.70	SR+D08000 Series
LPG25D24	38	1.1/2"	52.0	2.05	25	375	100	1,500	320	12.60	1,20	0.80	SR+D08000 Series
LPG25D32	51	2"	67.0	2.64	25	375	100	1,500	400	15.75	1,83	1.22	SR+D08000 Series
LPG25D40	63	2.1/2"	81.0	3.19	25	375	100	1,500	550	21.65	2,50	1.67	SR+D08000 Series
LPG25D48	76	3"	94.0	3.70	25	375	100	1,500	650	25.59	3,02	2.01	SR+D08000 Series
LPG25D64	102	4"	120.0	4.72	25	375	100	1,500	800	31.50	3,86	2.57	SR+D08000 Series

LPG/25 SD SUCTION & DELIVERY HOSE FOR LPG



TUBE:

Black NBR conductive rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER:

Black, pin-pricked CR rubber, fire-proof, anti-static (R<106 Ohm/m), oil, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction & delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 40m (DN12 DN19); 50m (DN25 DN 51); 61m (DN 63 DN 102).

APPLICATION & FLUIDS:

Suction and delivery hose for LPG.

TEMPERATURE RANGE:

From -30° C to $+70^{\circ}$ C (-22° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 1762 Type SD / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

LPG/ PART NO	25 SD HOSE	: SIZE	NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND DIUS	AVEF WEI	RAGE	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
LPG25SD8	12	1/2"	23.0	0.91	25	375	100	1,500	55	2.17	0,44	0.29	SR+D08000 Series
LPG25SD10	16	5/8"	26.0	1.02	25	375	100	1,500	75	2.95	0,52	0.35	SR+D08000 Series
LPG25SD12	19	3/4"	31.0	1.22	25	375	100	1,500	100	3.94	0,68	0.45	SR+D08000 Series
LPG25SD16	25	1"	38.0	1.50	25	375	100	1,500	140	5.51	0,90	0.60	SR+D08000 Series
LPG25SD20	31	1.1/4"	45.0	1.77	25	375	100	1,500	190	7.48	1,18	0.79	SR+D08000 Series
LPG25SD24	38	1.1/2"	52.0	2.05	25	375	100	1,500	200	7.87	1,50	1.00	SR+D08000 Series
LPG25SD32	51	2"	67.0	2.64	25	375	100	1,500	280	11.02	2,20	1.47	SR+D08000 Series
LPG25SD40	63	2.1/2"	81.0	3.19	25	375	100	1,500	380	14.96	2,90	1.93	SR+D08000 Series
LPG25SD48	76	3"	94.0	3.70	25	375	100	1,500	460	18.11	3,58	2.39	SR+D08000 Series
LPG25SD64	102	4"	120.0	4.72	25	375	100	1,500	625	24.61	4,56	3.04	SR+D08000 Series



CHEMICAL/10 D FKM DELIVERY HOSE FOR AGGRESSIVE CHEMICALS



TUBE:

Black FKM rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black synthetic CR rubber, chemical, oil, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 20m (DN6 DN10); 40m (DN12 - DN51).

APPLICATION & FLUIDS:

Delivery of aggressive chemicals and acids in high concentrations.

TEMPERATURE RANGE:

From -35°C to +100°C (-31°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

CHEMIC PART NO	CAL/10 D HOSE	E SIZE		INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CH10D4	6	1/4"	16.0	0.63	10	150	40	600	-	-	0,27	0.18	SR+D08000 Series
CH10D5	8	5/16"	18.0	0.71	10	150	40	600	-	-	0,32	0.21	SR+D08000 Series
CH10D6	10	3/8"	20.0	0.79	10	150	40	600	-	-	0,38	0.25	SR+D08000 Series
CH10D8	12	1/2"	23.0	0.91	10	150	40	600	-	-	0,45	0.30	SR+D08000 Series
CH10D10	16	5/8"	26.0	1.02	10	150	40	600	-	-	0,53	0.35	SR+D08000 Series
CH10D12	19	3/4"	29.0	1.14	10	150	40	600	-	-	0,60	0.40	SR+D08000 Series
CH10D16	25	1"	35.0	1.38	10	150	40	600	-	-	0,75	0.50	SR+D08000 Series
CH10D20	31	1.1/4"	44.0	1.73	10	150	40	600	-	-	1,15	0.77	SR+D08000 Series
CH10D24	38	1.1/2"	50.0	1.97	10	150	40	600	-	-	1,33	0.89	SR+D08000 Series
CH10D32	51	2"	65.0	2.56	10	150	40	600	-	-	2,10	1.40	SR+D08000 Series

CHEMICAL HOSES

CHEMICAL/10 SD

FKM SUCTION & DELIVERY HOSE FOR AGGRESSIVE CHEMICALS



TUBE:

Black FKM rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER

Black synthetic CR rubber, chemical, oil, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 40m.

APPLICATION & FLUIDS:

Delivery of aggressive chemicals and acids in high concentrations.

TEMPERATURE RANGE:

From -35° C to $+100^{\circ}$ C (-31° F to $+212^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

CHEMIC	AL/10 SD HOSE	: SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF WEI	RAGE	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CH10SD12	19	3/4"	31.0	1.22	10	150	40	600	85	3.35	0,74	0.49	SR+D08000 Series
CH10SD16	25	1"	37.0	1.46	10	150	40	600	112	4.41	0,96	0.64	SR+D08000 Series
CH10SD20	31	1.1/4"	44.0	1.73	10	150	40	600	144	5.67	1,25	0.83	SR+D08000 Series
CH10SD24	38	1.1/2"	51.0	2.01	10	150	40	600	171	6.73	1,40	0.93	SR+D08000 Series
CH10SD32	51	2"	67.0	2.64	10	150	40	600	229	9.02	2,15	1.43	SR+D08000 Series
CH10SD40	63	2.1/2"	80.0	3.15	10	150	40	600	317	12.48	2,60	1.73	SR+D08000 Series
CH10SD48	76	3"	92.0	3.62	10	150	40	600	380	14.96	3,20	2.13	SR+D08000 Series
CH10SD64	102	4"	118.0	4.65	10	150	40	600	510	20.08	4,60	3.07	SR+D08000 Series



CHEMICAL/16 SDE EN 12115

ANTI-STATIC EPDM SUCTION & DELIVERY HOSE FOR CHEMICAL PRODUCTS EN 12115



TUBE:

Black, smooth anti-static EPDM rubber.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<1M Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Suction and delivery of chemicals as per EN12115 Fireproof and anti-static cover (R < 106 Ohm/m).

TEMPERATURE RANGE:

From -40°C to + 100°C (-40°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 12115 (Grade Ω) / TRbF.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

CHEMICAL/10		12115 : SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS		V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CH16SDE12	19	3/4"	31.0	1.22	16	240	64	960	125	4.92	0,70	0.47	SR+D08000 Series
CH16SDE16	25	1"	37.0	1.46	16	240	64	960	150	5.91	0,92	0.62	SR+D08000 Series
CH16SDE20	31	1.1/4"	44.0	1.73	16	240	64	960	175	6.89	1,09	0.73	SR+D08000 Series
CH16SDE24	38	1.1/2"	51.0	2.01	16	240	64	960	225	8.86	1,35	0.91	SR+D08000 Series
CH16SDE32	51	2"	67.0	2.64	16	240	64	960	275	10.83	1,84	1.24	SR+D08000 Series
CH16SDE40	63	2.1/2"	80.0	3.15	16	240	64	960	300	11.81	2,54	1.71	SR+D08000 Series
CH16SDE48	76	3"	92.0	3.62	16	240	64	960	350	13.78	3,20	2.15	SR+D08000 Series
CH16SDE64	102	4"	118.0	4.65	12	180	48	720	450	17.71	4,43	2.98	SR+D08000 Series

CHEMICAL HOSES

CHEMICAL/16 SDA EN 12115

ANTI-STATIC UHMWPE SUCTION & DELIVERY HOSE FOR CHEMICAL PRODUCTS EN 12115



TUBE:

Black conductive UHMWPE.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<1G Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Suction & delivery for chemicals, oils, fuels and bunkering. Cover compound is tested an approved according to EN 60079-0:2012 ($R \le 109 \text{ Ohm/m}$).

Hose structure designed to assure and maintain the requirements for the ATEX working conditions.

TEMPERATURE RANGE:

From -20° C to $+100^{\circ}$ C (-4° F to $+212^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 12115 (Grade Ω/T) / TRbF / FDA; EN 60079-0.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

CHEMICAL/16		12115 : SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CH16SDA12	19	3/4"	31.0	1.22	16	240	64	960	125	4.92	0,71	0.47	SR+D08000 Series
CH16SDA16	25	1"	37.0	1.46	16	240	64	960	150	5.91	0,87	0.58	SR+D08000 Series
CH16SDA20	31	1.1/4"	44.0	1.73	16	240	64	960	175	6.89	1,07	0.71	SR+D08000 Series
CH16SDA24	38	1.1/2"	51.0	2.01	16	240	64	960	225	8.86	1,35	0.90	SR+D08000 Series
CH16SDA32	51	2"	67.0	2.64	16	240	64	960	275	10.83	2,29	1.53	SR+D08000 Series
CH16SDA40	63	2.1/2"	80.0	3.15	16	240	64	960	300	11.81	2,51	1.67	SR+D08000 Series
CH16SDA48	76	3"	92.0	3.62	16	240	64	960	350	13.78	3,08	2.05	SR+D08000 Series
CH16SDA64	102	4"	118.0	4.65	12	180	48	720	450	17.71	4,51	3.01	SR+D08000 Series



CHEMICAL/16 SD EN 12115

FEP SUCTION & DELIVERY HOSE FOR CHEMICAL PRODUCTS EN 12115



TUBE:

White glossy non-conductive FEP (Fluorinated ethylene propylene).

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black synthetic CR rubber, fire-proof, anti-static (R<106 Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- Hardwall delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 20m.

APPLICATION & FLUIDS:

Suction & delivery for chemicals, petroleum and food stuffs as per EN 12115 specifications.

Hose tube is FDA approved.

TEMPERATURE RANGE:

From -50° C to $+ 170^{\circ}$ C (-58° F to $+338^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

EN 12115 (Grade M) / TRbF / FDA.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

CHEMICAL/16 PART NO		2115 ESIZE		INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM END DIUS		VERAGE VEIGHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
CH16SD8	12	1/2"	25.0	0.98	16	240	64	960	84	3.31	0,32	0.21	SR+D08000 Series
CH16SD12	19	3/4"	31.0	1.22	16	240	64	960	125	4.92	0,47	0.31	SR+D08000 Series
CH16SD16	25	1"	37.0	1.46	16	240	64	960	150	5.91	0,58	0.39	SR+D08000 Series
CH16SD20	31	1.1/4"	44.0	1.73	16	240	64	960	175	6.89	0,92	0.61	SR+D08000 Series
CH16SD24	38	1.1/2"	51.0	2.01	16	240	64	960	225	8.86	1,20	0.80	SR+D08000 Series
CH16SD32	51	2"	67.0	2.64	16	240	64	960	275	10.83	2,12	1.41	SR+D08000 Series

DISTILLERY/12 SD

BEER, WINE & ALCOHOL SUCTION & DELIVERY HOSE



TURF:

White BIIR (butyl) rubber, food quality, odourless & taste-free.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER

Orange EPDM rubber, ozone, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Suction and delivery for beer, wine, alcohol and soft drinks.

TEMPERATURE RANGE:

From -40°C to + 120°C (-40°F to +248°F) - sterilization at 110°C / 230°F for 30 minutes.

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

FDA title 21 art. 177.2600 (e) for liquid foods; BfR; ADI free; CE 1935/2004; PHTHALATE free.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

DISTILLE PART NO		: SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS		V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
DS12SD12	19	3/4"	32.0	1.26	12	180	36	540	80	3.15	0,78	0.52	SR+D08000 Series
DS12SD16	25	1"	38.0	1.50	12	180	36	540	115	4.53	0,92	0.61	SR+D08000 Series
DS12SD20	31	1.1/4"	46.0	1.81	12	180	36	540	145	5.71	1,19	0.79	SR+D08000 Series
DS12SD24	38	1.1/2"	52.0	2.05	12	180	36	540	180	7.09	1,48	0.99	SR+D08000 Series
DS12SD32	51	2"	65.0	2.56	12	180	36	540	245	9.65	1,89	1.26	SR+D08000 Series
DS12SD40	63	2.1/2"	81.0	3.19	12	180	36	540	340	13.39	2,91	1.94	SR+D08000 Series
DS12SD48	76	3"	95.0	3.74	12	180	36	540	410	16.14	3,41	2.27	SR+D08000 Series
DS12SD64	102	4"	122.0	4.80	12	180	36	540	580	22.83	4,96	3.31	SR+D08000 Series



DISTILLERY/12 SDC

BEER, WINE & ALCOHOL SUCTION & DELIVERY HOSE IMPROVED FLEXIBILITY



TUBE:

White BIIR (butyl) rubber, food quality, odourless & taste-free.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER.

Orange, normal corrugated EPDM rubber, ozone, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Normal corrugated cover for improved flexibility.
- · Compact, lightweight.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Suction and delivery for beer, wine, alcohol and soft drinks.

TEMPERATURE RANGE:

From -40°C to + 120°C (-40°F to +248°F) - sterilization at 110°C / 230°F for 30 minutes.

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

FDA title 21 art. 177.2600 (e) for liquid foods; BfR; ADI free; CE 1935/2004; PHTHALATE free.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

DISTILLER PART NO		SIZE	NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAI		AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
DS12SDC20	31	1.1/4"	46.0	1.81	12	180	36	540	115	4.53	1,04	0.69	SR+D08000 Series
DS12SDC24	38	1.1/2"	52.0	2.05	12	180	36	540	140	5.51	1,51	1.01	SR+D08000 Series
DS12SDC32	51	2"	65.0	2.56	12	180	36	540	195	7.68	1,95	1.30	SR+D08000 Series
DS12SDC40	63	2.1/2"	81.0	3.19	12	180	36	540	270	10.63	3,10	2.07	SR+D08000 Series
DS12SDC48	76	3"	95.0	3.74	12	180	36	540	285	11.22	3,60	2.40	SR+D08000 Series
DS12SDC64	102	4"	122.0	4.80	12	180	36	540	335	13.19	5,10	3.40	SR+D08000 Series

FATFOOD/10 SD

MILK & FATTY FOODS SUCTION & DELIVERY HOSE



TURF:

White NBR rubber, food quality odourless and taste-free.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire.

COVER

Blue NBR rubber, ozone, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Suction and delivery of milk and fatty foods.

TEMPERATURE RANGE:

From -40°C to + 80°C (-40°F to +176°F) - sterilization at 110°C / 230°F for 30 minutes.

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

FDA title 21 art. 177.2600 (f) for fatty foods; BfR; ADI free; D.M. 21/03/73; CE 1935/2004; PHTHALATE free.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

FATFOO PART NO	DD/10 SD HOSE	: SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	MINI BE RAI		AVER WEI	RAGE	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
FF10SD12	19	3/4"	29.0	1.14	10	150	30	450	40	1.57	0,65	0.43	SR+D08000 Series
FF10SD16	25	1"	35.0	1.38	10	150	30	450	55	2.17	0,82	0.55	SR+D08000 Series
FF10SD20	31	1.1/4"	44.0	1.73	10	150	30	450	74	2.91	1,25	0.83	SR+D08000 Series
FF10SD24	38	1.1/2"	50.0	1.97	10	150	30	450	86	3.39	1,45	0.97	SR+D08000 Series
FF10SD32	51	2"	64.0	2.52	10	150	30	450	112	4.41	1,96	1.31	SR+D08000 Series
FF10SD40	63	2.1/2"	77.0	3.03	10	150	30	450	136	5.35	2,45	1.63	SR+D08000 Series
FF10SD48	76	3"	90.0	3.54	10	150	30	450	160	6.30	2,97	1.98	SR+D08000 Series
FF10SD64	102	4"	116.0	4.57	10	150	30	450	380	14.96	6,70	4.47	SR+D08000 Series



LIQUIDFOOD/10 SD

MULTI-PURPOSE LIQUID FOOD SUCTION & DELIVERY HOSE



TUBE:

White EPDM rubber, food quality odourless and taste-free.

REINFORCEMENT:

High tensile synthetic cord with 2 steel helix body wires.

COVER:

Blue EPDM rubber, ozone, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall suction and delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Suction & delivery multi-purpose hose. Fatty foods, wine, beer, potable water etc.

TEMPERATURE RANGE:

From -40°C to + 140°C (-40°F to +284°F) - sterilization at 110°C / 230°F for 30 minutes.

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

FDA title 21 art. 177.2600 (f) for fatty foods; BfR; ADI free; D.M. 21/03/73; CE 1935/2004; PHTHALATE free.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

LIQUIDFO) E SIZE		INAL E OD		MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS		V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
LF10SD24	38	1.1/2"	50.0	1.97	10	150	30	450	150	5.91	1,44	0.96	SR+D08000 Series
LF10SD32	51	2"	63.0	2.48	10	150	30	450	205	8.07	2,10	1.40	SR+D08000 Series
LF10SD40	63	2.1/2"	78.0	3.07	10	150	30	450	285	11.22	2,53	1.69	SR+D08000 Series
LF10SD48	76	3"	91.0	3.58	10	150	30	450	390	15.35	3,22	2.15	SR+D08000 Series
LF10SD64	102	4"	120.0	4.72	10	150	30	450	500	19.69	4,63	3.09	SR+D08000 Series

DRY FOOD LAYFLAT/10

LAYFLAT HOSE FOR DRY FOODS (GRAINS, SEED, RICE ETC.)



TUBE:

White NR rubber, food quality odourless and taste-free.

REINFORCEMENT:

High tensile synthetic cord and 2 crossed copper wires for hose grounding.

COVER:

Black CR rubber, fire proof, anti-static (R<1G Ohm/m), chemical, ozone and weathering resistant.

KEY FEATURES:

- · Layflat delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m.

APPLICATION & FLUIDS:

Delivery hose for dry and abrasive food stuffs (eg: grains, seed, rice, sugar, flour and animal food).

Cover compound is tested an approved according to EN 60079-0:2012 ($R \le 109 \text{ Ohm/m}$).

Hose structure designed to assure and maintain the requirements for the ATEX working conditions.

TEMPERATURE RANGE:

From -40°C to + 80°C (-40°F to +176°F) - sterilization at 110°C / 230°F for 30 minutes.

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

FDA title 21 art. 177.2600 (a, b, c, d) for dry foods; BfR; ADI free; D.M. 21/03/73; CE 1935/2004; PHTHALATE free; EN 60079.

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

DRY FOOD	LAYFLAT/	'10	[(Ĵ		Ą	[₩	
PART NO	HOSE	SIZE	NOM HOS	INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD		AVERAGE WEIGHT		COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
DFL1064	102	4"	112.0	4.41	10	150	30	450	-	-	2,43	1.62	SR+D08000 Series
DFL1196	152	6"	166.0	6.54	10	150	30	450	-	-	4,79	3.19	Market Fittings



ABRASIVE LAYFLAT/10

LAYFLAT DELIVERY HOSE FOR CONCRETE, SAND, GRAVEL & OTHER ABRASIVE DRY MATERIALS



TUBE:

Black NR/SBR rubber.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black synthetic SBR/NR/PVC rubber, anti-static, abrasion and weathering resistant.

KEY FEATURES:

- · Layflat delivery structure.
- · Compact, lightweight and flexible.
- Robust hose structure for longer life in severe applications.
- Long length assemblies available Max length: 61m (up to DN152); 40m (DN203).

APPLICATION & FLUIDS:

Delivery hose for dry abrasive materials, concrete, sand and gravel.

TEMPERATURE RANGE:

From -40° C to $+70^{\circ}$ C (-40° F to $+158^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

APPLICABLE SPECS:

DIN 53516 70 ±5mm3.

COUPLINGS:

Market Fittings.

ABRASIVE PART NO		T E SIZE	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SSURE	BE	MUM ND DIUS		W ERAGE EIGHT	COUPLING SERIES TWO PIECE
Hose	e DN inch		mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
AL57	90	3-35/64"	100.0	3.94	6	90	18	270	-	-	1,25	0.83	Market Fittings
AL64	102	4"	112.0	4.41	4	60	12	180	-	-	1,39	0.93	Market Fittings
AL80	127	5"	137.0	5.39	4	60	12	180	-	-	1,72	1.15	Market Fittings
AL96	152	6"	162.0	6.38	4	60	12	180	-	-	2,05	1.37	Market Fittings
AL128	203	8"	213.0	8.39	4	60	12	180	-	-	2,74	1.83	Market Fittings

ABRASIVE HOSES

SANDBLASTING/21 D

SANDBLASTING & ABRASIVE FLUID HOSE



TUBF:

Black, NR/SBR rubber, abrasion resistant thick tube.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black, NR/SBR rubber, abrasion resistant. Cover is pin-pricked.

KEY FEATURES:

- · Softwall delivery structure.
- · Highly robust construction.
- · Long life in extreme conditions.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Sand blasting or transfer of highly abrasive materials such as grit and gravel.

TEMPERATURE RANGE:

From -40°C to +80°C (-40°F to +176°F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

SANDBLA: Part no			NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
SB21D12	19	3/4"	32.8	1.29	21	300	63	910	90	3.54	0,52	0.35	SR+D08000 Series
SB21D16	25	1″	39.2	1.54	21	300	63	910	115	4.53	0,66	0.45	SR+D08000 Series
SB21D20	31	1.1/4"	49.0	1.93	21	300	63	910	150	5.91	1,07	0.72	SR+D08000 Series
SB21D24	38	1.1/2"	56.8	2.24	21	300	63	910	180	7.09	1,57	1.06	SR+D08000 Series
SB21D32	51	2"	71.4	2.81	21	300	63	910	240	9.45	2,32	1.56	SR+D08000 Series



BULK MATERIAL/10 D

ABRASIVE FLUID HOSE HEAVY DUTY



TUBE:

Black, NR/SBR rubber, abrasion resistant thick tube.

REINFORCEMENT:

High tensile synthetic cord with 2 crossing copper wires for grounding.

COVER:

Black, NR/SBR rubber, abrasion resistant.

KEY FEATURES:

- · Softwall delivery structure.
- · High resistance to continuous abrasion.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Dry and liquid abrasive mix transfer.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

	BULK MAT	D			MAXI) MUM		MUM	V	V		
PA	PART NO HOSE SIZE		SIZE		INAL E OD		KING	BUI		BE	ND DIUS		RAGE GHT	COUPLING SERIES TWO PIECE
I	Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m lb/ft		NON-SKIVE
BN	M10D32	51	2″	67.8	2.67	10	150	30	450	-	-	1,65	1.11	SR+D08000 Series
BN	110D48	76	3"	96.4	3.80	10	150	30	450	-	-	3,15	2.11	SR+D08000 Series

ABRASIVE HOSES

BULK MATERIAL/10 SD

ABRASIVE FLUID HOSE HEAVY DUTY



TURF

Black, NR/SBR rubber, abrasion resistant thick tube.

REINFORCEMENT:

High tensile synthetic cord with steel helix body wire and 2 crossing copper wires for grounding.

COVER:

Black, NR/SBR rubber, abrasion resistant.

KEY FEATURES:

- · Hardwall suction & delivery structure.
- High resistance to continuous abrasion.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Dry and liquid abrasive mix transfer.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series. Market Fittings.

BULK MATE PART NO		SD : Size	NOM HOS			MUM KING SURE	MINI BUI PRES		BE	MUM ND DIUS	۲	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
BM10SD32	51	2"	69.6	2.74	10	150	30	450	200	7.87	2,39	1.60	SR+D08000 Series
BM10SD40	63	2.1/2"	85.5	3.37	10	150	30	450	250	9.84	3,63	2.44	SR+D08000 Series
BM10SD48	76	3"	98.4	3.87	10	150	30	450	300	11.81	4,59	3.08	SR+D08000 Series
BM10SD64	102	4"	124.6	4.91	10	150	30	450	450	17.72	6,01	4.04	SR+D08000 Series
BM10SD80	127	5"	149.0	5.87	10	150	30	450	600	23.62	7,25	3.45	Market Fittings



REVERSE CYCLE DRILLING/35 SD REVERSE CYCLE DRILLING HOSE



TUBE:

Black, anti-static NR/SBR rubber, abrasion resistant thick tube.

REINFORCEMENT:

High tensile synthetic cord and steel helix body wire.

COVER:

Black, anti-static NR/SBR rubber, abrasion resistant. Cover is pin-pricked.

KEY FEATURES:

- · High robustness of the hose structures.
- Long lasting in severe applications.
- High abrasion resistance of the tube compound.
- Max Length: 60m.

APPLICATION & FLUIDS:

Drilling slurry with stones and mixed materials during reverse cycle drilling operations.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

Market Fittings.

REVERSE CYCLE	REVERSE CYCLE DRILLING/35 SD PART NO HOSE SIZE		NOM		MAXI	MUM KING		MUM RST		MUM ND	V	V	
PART NO			HOS		PRES			SURE		DIUS	WEI		COUPLING SERIES
Hose	DN inch		mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
RCD35SD40	63	2.1/2"	89.7	3.53	35	508	105	1,523	250	9.80	4,32	2.91	Market Fittings
RCD35SD48	76	3"	104.7	4.12	35	508	105	1,523	300	11.8	5,71	3.84	Market Fittings
RCD35SD64	102	4"	136.0	5.35	35	508	105	1,523	400	15.75	9,27	6.23	Market Fittings

ABRASIVE HOSES

PLASTER/40 D PLASTER SPRAYING HOSE



TUBE:

Black, NR/SBR rubber, abrasion resistant thick tube.

REINFORCEMENT:

High tensile synthetic cord.

COVER:

Black, NR/SBR rubber, abrasion resistant.

KEY FEATURES:

- · Softwall delivery structure.
- · High resistance to continuous abrasion.
- Long length assemblies available Max length: 60m.

APPLICATION & FLUIDS:

Mortar, gypsum, grout spraying at open air, indoor or underground construction sites, etc.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 3:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

PLASTI PART NO			NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SSURE	BE	MUM ND DIUS	AVE	V RAGE GHT	COUPLING SERIES TWO PIECE
Hose	DN	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
P40D12	19	3/4"	32.5	1.28	40	580	120	1,740	150	5.90	0,54	0.36	SR+D08000 Series
P40D16	25	1″	39.3	1.55	40	580	120	1,740	170	6.69	0,68	0.46	SR+D08000 Series
P40D20	31	1.1/4"	45.2	1.78	40	580	120	1,740	200	7.87	0,88	0.59	SR+D08000 Series
P40D24	35	1.3/8"	51.0	2.01	40	580	120	1,740	200	7.87	1,10	0.74	SR+D08000 Series
P40D24	38	1.1/2"	54.6	2.15	40	580	120	1,740	230	9.05	1,23	0.83	SR+D08000 Series
P40D32	51	2"	67.8	2.67	40	580	120	1,740	270	10.62	1,85	1.24	SR+D08000 Series



CONCRETE/100 D

DELIVERY HOSE FOR HIGH-PRESSURE CONCRETE PUMPING



TUBE:

Black, anti-static NR/SBR rubber, abrasion resistant thick tube.

REINFORCEMENT:

High tensile steel cord.

COVER:

Black, anti-static NR/SBR rubber, abrasion and weathering resistant.

KEY FEATURES:

- · Hardwall delivery structure.
- Robust hose structure for longer life in severe applications.
- · High abrasion resistance.
- Integrated crimped fitting solution.
- Long length assemblies available Max length: 40m.

APPLICATION & FLUIDS:

High-pressure pumping of concrete, plaster, bentonite etc. in construction.

TEMPERATURE RANGE:

From -40° C to $+80^{\circ}$ C (-40° F to $+176^{\circ}$ F).

WORKING PRESSURE:

Maximum working pressures are based on 2.5:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

TWO-PIECE CRIMP

SR + D08000 Series.

	CONCRETION	E/100 D HOSE	SIZE	REINFOR O	RCEMENT OF	NOM HOS		WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS		V RAGE GHT	COUPLING SERIES TWO PIECE
			Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
	C100D32 51 2"		2"	66.0	2.59	70.6	2.78	100	1,450	250	3,626	250	9.84	2,99	2.01	FF + D08000 series
	C100D40	63	2.1/2"	78.4	3.08	83.0	3.27	100	1,450	250	3,626	320	12.59	3,68	2.48	FF + D08000 series
	C100D48	76	3"	90.8	3.57	95.4	3.76	100	1,450	250	3,626	380	14.96	4,40	2.96	FF + D08000 series
	C100D56	89	3.1/2"	105.0	4.13	109.6	4.31	100	1,450	250	3,626	450	17.71	5,35	3.60	FF + D08000 series
	C100D64	102	4"	117.0	4.6	122.5	4.82	100	1,450	250	3,626	500	19.68	6,36	4.28	FF + D08000 series
OMING SOON	C100D80	127	5"	147.0	5.79	153.0	6.02	100	1,450	250	3,625	630	24.80	11,00	7.39	FF + D08000 series





INDUSTRIAL FITTINGS INTRODUCTION

The Ryco range of industrial fittings for crimped hose connections comprises of two families, the Serrated Range and Full Flow:

- Serrated Range (SR) Universal solution for low and medium pressure hose lines.
- **Full Flow (FF)** Fittings for high pressure lines, designed to provide low resistance to flowing of concrete during working operations (such as CONCRETE/100 D).

Theses fittings are available upon request. Please contact your local Ryco representative with your requirements.

FERRULES

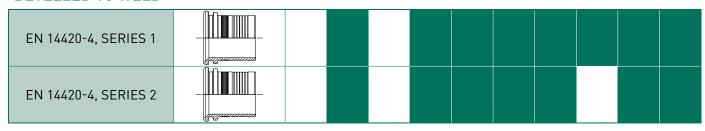
DN	16	19	22	25	31	38	51	63	76	102
Inch	5/8"	3/4"	7/8"	1"	11/4"	11/2"	2"	21/2"	3"	4"
Size	-10	-12	-14	-16	-20	-24	-32	-40	-48	-64

SERRATED					
FULL FLOW					

COUPLINGS INSERTS

DN	16	19	22	25	31	38	51	63	76	102
Inch	5/8"	3/4"	7/8"	1"	11/4"	11/2"	2"	21/2"	3"	4"
Size	-10	-12	-14	-16	-20	-24	-32	-40	-48	-64

BEVELLED TO WELD



BSP FEMALE FRONT SEAL FULL HEXAGON



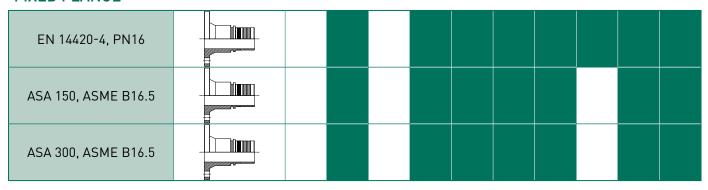
BSP FEMALE FRONT SEAL GROOVE HEXAGON



BSP MALE FRONT SEAL



FIXED FLANGE



SWIVEL FLANGE



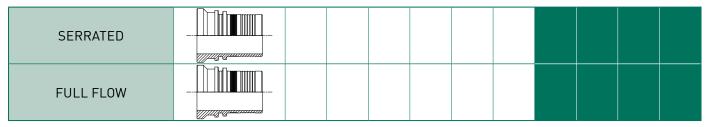
TECHNICAL

DN	16	19	22	25	31	38	51	63	76	102
Inch	5/8"	3/4"	7/8"	1"	11/4"	1½"	2"	21/2"	3"	4"
Size	-10	-12	-14	-16	-20	-24	-32	-40	-48	-64

VICTAULIC GROOVED END



CALIFORNIA RAISED END







INDUSTRIAL HOSE ASSEMBLY MACHINES

As one of the world's leading suppliers of hose connector solutions Ryco is able to offer some of the most technically advanced, robust and reliable hose assembly equipment on the market today.

With a product range that encompasses all stages of the hose assembly process, the Ryco range of assembly machines can cater for everything, from on-site repairs to high volume, large-bore production cells.

Full details of the entire range can be found on the Ryco website, but some machines that are specifically suited to industrial hose assembly operations can be found below:

DECOILER

Heavy duty, motorised decoiler suitable for large-bore hoses up to 6". Ideally suited to industrial hose assembly operations at both the start and end of the assembly process. Adjustable centre pins allow the user to determine the inner coil diameter and prevent accidental kinking of the hose.



INDUSTRIAL DECOILERS

- Max. Capacity: 6"
- · Adjustable centre pins
- Remote start / stop controller
- · High torque 3kW motor with speed control

INSERT PUSHING MACHINES

A compact and sturdy unit, designed to facilitate the assembly of medium- to large-bore hoses up to 6". With a stroke of 300mm and an insertion force of 2,000 N, this powerful machine takes the strain out of the hose assembly process.



M 2000 INS

- Max. Capacity: 6"
- Manual insert centring device
- Joystick operated clamping and insertion
- Available with both automatic and manual operation

ASSEMBLY EQUIPMENT

INDUSTRIAL CUTTING MACHINES

CUTTING MACHINES

A range of powerful and versatile hose cutting machines for medium- and large-bore hoses. Designed for maximum safety and cutting efficiency, these machines vary in capacity from 3" to a massive 10".



M 75 CUT

- Max. Capacity: 3"
- Powerful 7.5kW motor
- High visibility
- Integrated safety cover



M 90 CUT

- Max. Capacity: 3½"
- Heavy duty design
- Electronic soft start
- Integrated smoke extraction



MDH 15 CUT

- Max. Capacity: 10"
- Sensor for blade tensioning
- · Water cooling system
- Automatic cutting cycle

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INDUSTRIAL CRIPMING MACHINES

CRIMPING MACHINES

Some of the most efficient and powerful crimping machines available on the market today. Crimping large-bore industrial hoses up to 16" is a highly specialised task that only a select few crimping machines can manage. Coupled with their intelligent design to facilitate handling of large hoses, these machines are essential additions to any industrial hose assembly workshop.



MB 450-200

- Max. Capacity: 6"
- Crimp force up to 450 tonnes
- Ergonomic and robust
- Large opening and long master dies



MS 320 OPEN HEAD

- Max. Capacity: 6"
- Crimp force up to 320 tonnes
- Lateral opening and no limit on end connector dimension
- Separate power pack and integrated safety system



MS 550 / MS 550-16

- Max. Capacity: 12" / 16"
- Crimp force up to 550 tonnes
- Safe Crimp System (SCS) control
- Step crimping capability





SELECTING THE CORRECT HOSE

The Ryco Industrial Hoses range is a specialised selection of products dedicated to the conveyance of specific substances in non-hydraulic applications. Each hose type has been designed to cope with the unique rigours associated with the transport of substances as diverse as fluids, solids and gases. This dedicated range of products is made from the highest quality materials using state-of-the-art manufacturing techniques to ensure quality, reliability and long service life.



The Ryco Industrial Hoses range comprises the following product categories:

WATER, AIR & STEAM HOSES - Dedicated to the transport of water, steam and compressed air.

ANTI-STATIC FUEL HOSES - Dedicated to the transport of fuels, oils and fluids with an aromatic content of up to 50%.

CHEMICAL HOSES - Dedicated to the transport of highly aggressive chemicals.

FOOD & BEVERAGE HOSES - Dedicated to the transport of beverages and solid and liquid foodstuffs.

ABRASIVE HOSES - Dedicated to the transport of abrasive fluids such as concrete, plaster, cement and dry powders.

CHOOSING THE CORRECT HOSE

In order to choose a hose suitable for a specific use it is necessary to determine at least the following basic points:

APPLICATION

Ryco Industrial Hoses have been designed to suit specific types of applications such as water, air, fuel, etc, which should be considered when selecting a hose type.

DELIVERY OR SUCTION

Delivery and suction of materials require different properties in hose structure. In addition to the high strength cords of delivery hoses, suction hoses have an interior helical wire to prevent hose collapse during suction.

PRESSURE

The maximum working pressure of the system should be evaluated when selecting an industrial hose. The working pressure allowance should include any peaks and surges that can occur during normal usage.

FLUID COMPATIBILITY

The nature, designation, concentration, temperature and state (liquid, solid, gaseous) of the conveyed fluid must be determined. In the case of solid substances the granulometry, density and quantity of the solid substance should be considered as well as the nature, speed and flow of the fluid carrying it.

SELECTING THE CORRECT HOSE

TEMPERATURE

Ambient temperatures should be considered when selecting hose types.

ENVIRONMENT AND LOCATION

The environmental factors which could affect hose performance and service life should be evaluated when selecting a hose. Factors such as humidity, exposure to atmospheric agents etc. should be considered. Environmental conditions such as UV rays, ozone, sea water, chemicals and aggressive elements can cause premature degradation of the hose. Also consider whether the hose will be located on the ground, suspended or immersed in a liquid.

MECHANICAL STRESS

The minimum bend radius (ref. product data sheet) required must be evaluated as well as any stresses related to traction, torsion, bending, vibration, compression, deflection and longitudinal or transversal loads.

ABRASION RESISTANCE

Ryco Industrial Hoses are manufactured to ensure a good overall resistance to abrasion. However, if the hose is to be used in conditions where there may be excessive corrosion, dragging or impact then it is advisable to use additional protection to prevent untimely wear of the cover.

FITTINGS

In order to guarantee safe and reliable performance, the fittings used must be selected according to the manufacturer's recommendation(s). The complete assembly must guarantee the working pressure listed by the hose manufacturer and fittings must be crimped in accordance to the latest published specifications.





POLYMERS USED IN INDUSTRIAL HOSES

Main Characteristics and Resistance Information

			_			RESI	STANC	E T0:		
ELASTOMER	INTERNATIONAL SYMBOL	COMMON / TRADE NAME	PHYSICAL STRENGTH	ABRASION	WEATHER / OZONE	GAS PERMEATION	MINERAL OILS	GASOLINES	HIGH TEMPERATURES	LOW TEMPERATURES
NATURAL RUBBER	NR	GUM RUBBER	E	E	Р	G	Р	Р	F	G
ACRYLONITRILE-BUTADIENE	NBR	NITRILE (BUNA-N)	G	F	Р	G	Е	Е	G	F
STYRENE-BUTADIENE	SBR	BUNA-S	E	Е	Р	G	Р	Р	F	G
POLYCHLOROPRENE	CR	NEOPRENE	E	Е	G	G	G	F	G	G
CHLORINATED ISOBUTYLENE-ISOPRENE	CIIR	CHLORO BUTYL	F	Р	Е	E	Р	Р	E	E
BROMOBUTYL RUBBER	BIIR	BROMO BUTYL	G	Р	Е	Е	Р	Р	E	E
CHLOROSULFONATED POLYETHYLENE	CSM	HYPALON	G	F	Е	Е	G	F	Е	G
CHLORINATED POYETHYLENE	СМ	СРЕ	G	F	E	G	G	G	E	G
ETHYLENE PROPYLENE DIENE	EPDM	EPDM	G	F	Е	F	Р	Р	Е	E
ETHYLENE PROPYLENE COPOLYMER	EPM	EPM	G	F	Е	G	Р	Р	Е	E
ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE	UHMWPE	UHPE	G	Е	Е	G	G	G	F	G
POLYESTER RESIN	PET	PET	G	E	G	G	G	G	G	G
POLYAMID RESIN	PA	NYLON	G	E	E	E	E	E	E	G
POLYURETHANE	PU	URETHANE	E	E	G	F	G	F	G	E
POLYVINYL CHLORIDE (PLASTICIZED)	PVC	PVC	F	G	Е	G	G	G	Р	Р
FLUORINATED ETHYLENE PROPYLENE	PTFE	TEFLON	G	F	Е	Е	Е	E	Е	G
SILICONE	VMQ	SILICONE	G	G	G	G	F	F	Е	Е
FLUOROPOLYMER	FKM	VITON	G	G	Е	E	Е	E	E	E
CARBOXYLATED NITRILE RUBBER	X-NBR	CARBOXYLATED NITRILE	G	E	G	G	E	E	G	G
FLUORINATED ETHYLENE PROPYLENE	FEP	FEP	G	G	G	G	Е	Е	Е	G

LEGEND (IN ORDER OF PERFORMANCE)

E - Excellent

G - Good

F - Fair

P - Poor

FLUID COMPATIBILITY

CHEMICAL COMPATIBILITY CHART FOR INDUSTRIAL HOSES

BEHAVIOUR TO CHEMICALS FOR INDUSTRIAL HOSES APPLICATIONS

BASED ON LITERATURE DATA

TUBE POLYMERS IN CONTACT WITH THE FLUID

Ryco Industrial Hoses are designed for fluid transfer applications with a specific transfer fluid which is specified in the relevant hose data sheet. They are not intended for diversified applications with various chemicals.

The following recommendations regarding generic chemicals are based on literature data regarding the polymers used for the tube compound. The actual field results of the fluid conveyed in the hose should be carefully tested and field validated by users.

LEGEND OF HOSE TYPES BY TUBE COMPOUNDS

TUBE COMPOUND CATEGORIES	HOSE TYPES
NITRILE (NBR)	FUEL/5 SDC, FUEL/10 D, FUELSERVICE/10 SD, FUEL/10 R4, FUEL/16 D, FUELSERVICE/16 SD, FUELSERVICE/20 D, FUELSERVICE/21 D, FUEL/21 SD, FUEL/D, FUEL/SD, FTRUCK/16 D, FUELTRUCK/16 SD, FUELFLEX/17 SDC, LPG/25 D, LPG/25 SD MILKYWAY/10 SD,
STYRENE-BUTADIENE (SBR)	AIR & WATER/12 D, AIR & WATER/12 SD, MULTISERVICE/21 D, AIR & WATER/21 SD, AIR COMPRESSOR, AIR & WATER COMPRESSOR/27, WATER LAYFLAT 5/10,
NATURAL RUBBER (NR)	DRY FOOD LAYFLAT/10, ABRASIVE LAYFLAT, SANDBLASTING/21 D, ABRASERVICE/10 D, BULK MATERIAL/10 SD, REVERSE CYCLE DRILLING/35 SD, PLASTER/40 D, CONCRETE/100 D
VINYL-METHYL-SILICONE (VMQ)	COOLING/5
ETHYLENE-PROPYLENE-DIENE-MONOMER (EPDM)	SNOW GUNS/60, SNOW GUNS/100, LIQUID FOOD/10 SD, CHEMKING/16 SDE, COOLING/SD
POLYCHLOROPRENE (CR)	FIREFIGHT
ETHYLENE-PROPYLENE (EPM)	PNEUMATIC/40, STEAM/18, STEAM/18 OR, STEAM/7
CARBOXYLATED NITRILE (X-NBR)	DRILLING MUD/28 D
FLUOROELASTOMER (FKM)	CHEMICAL/10 D, CHEMICAL/10 SD
ULTRA-HIGH MOLECULAR WEIGHT POLYETHYLENE (UHMWPE)	CHEMICAL/16 SDA EN 12115
FLUORINATED-ETHYLENE-PROPYLENE (FEP)	CHEMICAL/16 SD EN 12115
BUTYL (BIIR)	DISTILLERY/12 SD, DISTILLERY/12 SDC

LEGEND OF RATINGS

E = Excellent - Small or negligible changes of compound properties: no problem for use. Service life can exceed the expectations.

G = Good - There are only minor changes of some compound properties. Service life is normally in line with state of the art (standard) expectations.

FT = Field Test recommended - A field test is recommended to allow the end user to either validate the selection in the actual working conditions or to reject the selection. Compatibility data shows significant changes on some compound properties, service life can be reduced. Higher durability can be achieved with reduced severity of working conditions (temperature in particular) or with an upgraded hose selection. After the results of the recommended field test, if the end user decides to use the selected hoses under his validation, the end users assumes all responsibility with regard to any possible effects and consequences arising out of the using of hoses in the actual working conditions and Ryco cannot be held responsible for any claims in relation to or connected with the hoses for which it was recommended to perform a field test.

X = Not recommended - Unsuitable, severe effects on physical properties.

REMARKS

O-Rings used with couplings must also be considered for chemical compatibility with the fluid to be conveyed. This includes fittings containing internal O-Rings. Standard O-Ring of Ryco fittings are made of Nitrile rubber (NBR). If you use special fluids or very high temperatures, different O-Ring materials should be used, contact Ryco for specific information.



	CHEMICALS	NBR / X-NBR	CHLOROPRENE	SBR	NR	EPDM / EPM	CIIR	VMQ	FKΜ	FEP	UHMWPE
	ACETALDEHYDE	Χ	FT	FT	G	G	G	Е	G	Е	Ε
	ACETHIL ACETONE	Х	Е	Х	Х	Е	-	Х	Х	Е	Х
	ACETIC ACID 10%	G	Е	G	FT	Е	G	FT	G	Е	Е
	ACETIC ACID 50%	Х	FT	Х	Х	G	G	FT	G	Е	FT
	ACETIC ACID GLACIAL 100%	Χ	Х	Χ	Χ	FT	G	FT	Χ	Е	G
	ACETIC ANHYDRIDE 50%	FT	FT	G	Х	Е	G	Е	Х	Е	FT
	ACETONE	Х	FT	FT	Х	Е	Е	G	Х	Е	Е
	ACETYLENE (GAS)	Е	Е	Е	G	Е	G	Е	Е	Е	Е
	ACRYLIC NITRATE	Χ	Е	G	-	Е	-	G	G	Е	Е
	ADIPIC ACID	Е	Е	Е	-	Е	-	-	Е	Е	Е
	AIR ATMOSPHERIC UP TO °C	70	80	70	70	120	120	175	200	100	90
	AIR COMPRESSED UP TO ℃	Χ	80	Х	Х	Х	120	175	200	100	90
	ALIMENTARY VINEGAR	Е	Е	Е	FT	Е	-	Е	FT	Е	Е
	ALLYL CHLORIDE	Х	Х	Χ	-	Х	-	Е	-	Е	Х
	ALUMINIUM ACETATE (AQUEOUS)	Е	Е	Е	FT	Е	Е	Х	-	Е	Е
	ALUMINIUM AND POTASSIUM SULPHATE (DOUBLE)	G	Е	Е	G	Е	Е	G	Е	Е	Е
	ALUMINIUM CHLORIDE (AQUEOUS)	Е	Е	Е	G	Е	Е	Х	Е	Е	Е
	ALUMINIUM FLUORIDE	Е	Е	Е	FT	Е	Е	Е	Е	Е	Е
	ALUMINIUM HYDROXIDE	Е	Е	Е	G	Е	-	Е	Е	Е	Е
	ALUMINIUM NITRATE (AQUEOUS)	Е	Е	Е	G	Е	Е	G	-	Е	Е
	ALUMINIUM PHOSPHATE (AQUEOUS)	Е	Е	Е	-	Е	-	Е	Е	Е	Е
Α	AMMONIA (AQUEOUS)	Е	Е	Е	FT	Е	G	Е	Е	Е	Е
	AMMONIA (LIQUID)	G	G	G	FT	Е	G	FT	Χ	Е	Е
	AMMONIA 20°C (VAPOUR)	Е	Е	Е	-	Е	G	Е	Е	Е	Е
	AMMONIUM CARBONATE (AQUEOUS)	G	Е	G	-	Е	Е	G	Е	Е	Е
	AMMONIUM CHLORIDE (AQUEOUS)	Е	Е	Е	G	Е	Е	Е	Е	Е	Е
	AMMONIUM DIPHOSFATE (AQUEOUS)	Е	Е	Е	-	Е	Е	G	Е	Е	Е
	AMMONIUM METAPHOSPHATE	Е	Е	Е	-	Е	Е	Е	Е	Е	Е
	AMMONIUM NITRATE	Е	Е	Е	-	Е	Е	G	-	Е	-
	AMMONIUM NITRATE (AQUEOUS)	Е	Е	Е	FT	Е	Е	Е	Е	Е	Е
	AMMONIUM PERSULPHATE (AQUEOUS)	Е	Е	Е	-	Е	Е	Е	-	Е	Е
	AMMONIUM PHOSPHATE (AQUEOUS)	Е	Е	Е	G	Е	Е	G	Е	Е	Е
	AMMONIUM SULPHATE	Е	Е	Е	G	Е	Е	Е	Е	Е	Е
	AMMONIUM THIOCYANATE	Е	Е	Е	-	Е	Е	Е	-	Е	Е
	AMYL CHLORIDE	Х	Х	Х	Х	Х	Х	FT	-	Е	Х
	AMYLIC ALCOHOL	Е	Е	E	FT	Е	G	Е	Е	Е	Е
	ANILINE	Х	FT	Х	Х	Х	G	G	G	Е	Е
	ANIMAL GLUE	Е	Е	G	-	FT	-	Е	E	Е	Е
	ANTIMONY CHLORIDE 50%	FT	Е	Е	-	Е	Х	Х	Е	Е	Е
	AQUA REGIA	G	Х	Х	Х	FT	-	FT	G	Е	Х
	ARGON (GAS)	Е	Е	Е	G	Е	Е	Е	E	Е	Е
	ARSENIC ACID	Е	Е	G	FT	Е	Е	Е	Е	Е	Е
	ASPHALT	G	G	X	Х	Х	Х	G	Е	Е	Е

FLUID COMPATIBILITY

CHLOROPRENE SBR SBR SBR VMQ	FEP	UHMWPE
BARIUM CHLORIDE (AQUEOUS) E E E G E E E	Е	Е
BARIUM HYDROXIDE E E E G E E E	Е	Е
BARIUM SULPHATE E E E G E - E E	Е	Е
BENZALDEHYDE X X FT X G E FT G	Е	-
BENZENE, BENZOL X X X X X X G	Е	Х
BENZOIC ACID (AQUEOUS) X X X X X X E	Е	Е
BENZYL ALCOHOL X FT G X E - E E	Е	FT
B BENZYL BENZOATE X X X - G G - E	Е	-
BENZYL CHLORIDE X FT FT - X X G E	Е	FT
BISMUTH CARBONATE E E E E E E	Е	Е
BISULPHATE (SO2 SOLUTION) FT - E - E E	Е	Е
BITUMEN UP TO °C 120 X X - X X 180	130	Х
BORIC ACID (AQUEOUS) E E E - E FT E	Е	Е
BRINE (KITCHEN SALT SOLUTION) E E E G E E E	Е	Е
BROMINE X X X X X X E	Е	Х
BROMINE WATER X X X X X X E	Е	Х
BROMOBENZENE X X X X X - X E	Е	Х
BROMOCHLOROMETHANE X X X X FT X X E	Е	Х
BUTADIENE X G X X FT X - E	Е	Е
BUTANE (GAS) E E G X G X FT E	Е	Х
BUTANE (LIQUID) E E X X X FT E	Е	Е
BUTIL ACETATE X X FT X G G FT X	Е	-
BUTYL ALCOHOL (BUTANOL) E E E G G G E	Е	Х
BUTYL AMINE FT X X - X X G X	Е	-
BUTYL BENZOATE X X X - E X - E	Е	-
BUTYL ETHER E G X X FT FT FT -	Е	Е
BUTYL GLYCOLE E FT E - E G G E	Е	E
BUTYL OIL - X X X G E	Е	-
BUTYL PHTALATE (DIBUTYL PHTHALATE) FT FT X G - G G	Е	FT
BUTYL STEARATE G X X X FT X E E	Е	Χ
BUTYLENE (LIQUID) G FT FT - G X - E	Е	Х
BUTYRALDEHYDE (BUTIRIC ALDEHYDE) FT G FT X G E FT -	Е	E
BUTYRIC ACID (AQUEOUS) X FT X G G G FT	E	Х



CALCIUM ACETATE								_																							_		_		-				-			-		BILITY BEHAVIOUR OF TOBE POLYMERS CONTACTING FLO	
CALCIUM BISCAPRONATE	FEP	EFD	0 11	EFD	ا لالما	Ε Ε Ε	L L K	V IVIG	VMQ		CIIR		EPDM / EPM		N R		SBR	CHLOROPRENE		NBR / X-NBR	CHEMICALS																								
CALCIUM BISULPHATE (AQUEOUS)	E	E	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Ε	Е	Е	E	E	E	(Χ	Х		-		E		Е		Χ		Е	G		G	CALCIUM ACETATE	
CALCIUM BISULPHITE	E	Е	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е		Е	E		Е		Е		Е		Е		Е	Е		Е	CALCIUM BICARBONATE	ľ
CALCIUM CARBONATE	Е	Е	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е		Е	E		Е	T	Ε		Е		G		Е	Е		Е	CALCIUM BISULPHATE (AQUEOUS)	
CALCIUM CHLORIDE (AQUEOUS)	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	5	G		Е		Е		G		G	G		FT	CALCIUM BISULPHITE	ſ
CALCIUM HYDROXIDE (AQUEOUS) G E E G E E G E E G E E	E	E	E	Е	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	:	Е	E	Ē	Е		Е		Е		G		Ε	Ε		Е	CALCIUM CARBONATE	
CALCIUM NITRATE E E E E E G E E G E E G E E E G E E G E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	Ē.	Е		Е		Е		G		Е	Е		Е	CALCIUM CHLORIDE (AQUEOUS)	
CALCIUM SULPHATE (AQUEOUS)	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	E	:	Е	E	5	G		Е		Е		G		Е	Ε		G	CALCIUM HYDROXIDE (AQUEOUS)	ľ
CALCIUM SULPHATE (AQUEOUS)	E	Е	E	E	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	:	Е	E	5	G		Ε		Е		G		Е	Ε		Е	CALCIUM NITRATE	ľ
CALCIUM SULPHIDE	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	E	:	E	E	5	G		Е		Е		-		Е	E		Е	CALCIUM OXIDE	ľ
CARBON OXIDE (CARBON MONOXIDE) CARBONIC ACID GAS E E E E CARBONIC ANHYDRIDE E CARBONIC GAS E E E CARBONIC GAS E E E E CASTOR OIL CELLULOSE ACETATE CHLORIC ACID (AQUEOUS) G FT E CHLORINATED WATER 3% FT CHLORINE (DRY) FT X G CHLORINE (DRY) FT X G CHLORINE (HUMID) X X X FT X FT - X E CHLOROPEROXIDE X X X X X - T FT FT E CHLOROPEROXIDE X X X X X X X CHROMIC ACID 10% X X X X X X X X X X X X X X X X X X	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	:	E	E		Е		Е		Е		G		Е	Е		Е	CALCIUM SULPHATE (AQUEOUS)	ľ
CARBONIC ACID GAS	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	5	G		G		Е		G		G	Е		G	CALCIUM SULPHIDE	ľ
CARBONIC ANHYDRIDE	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E		Е		Е		FT		-		G	G		G	CARBON OXIDE (CARBON MONOXIDE)	ľ
CARBONIC GAS	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E		Е		Е		Е		G		Е	Е		Е	CARBONIC ACID GAS	ľ
CASTOR OIL E E E C G FT E E CELLULOSE ACETATE E FT FT X G G F - E C	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		E	E		Е		Е		G		Х		Х	G		Е	CARBONIC ANHYDRIDE	ľ
CELLULOSE ACETATE E FT FT X G G E - CHLORIC ACID (AQUEOUS) G FT E - E G G G G A X	E	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Е	Е	Е	E	E	Е	:	Е	E	Ē	Е		-		Е		-		Е	Ε		Е	CARBONIC GAS	ľ
CHLORIC ACID (AQUEOUS) CHLORINATED WATER 3% CHLORINE (DRY) FT	Е	Е	E	Е	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	:	Е	E		Е		FT		G		-		Е	Е		Е	CASTOR OIL	ľ
CHLORINATED WATER 3% CHLORINE (DRY) FT X G X FT X X E CHLORINE (HUMID) X X FT X FT - X E CHLORO PEROXIDE X X X X - FT - FT E CHLOROPHENIL X X X X - X - G E CHLOROFORM (TRICHLOROMETHANE) X X X X X X X X X X X X X X X X X X X	Е	E	E	E	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	E	Ε	Е	Е	Е	Е	Е	E	E	Е		-	-		Е		G		G		Χ		FT	FT		Е	CELLULOSE ACETATE	ľ
CHLORINE (DRY) FT X G X FT X X E CHLORINE (HUMID) X X X FT X FT - X E CHLORO PEROXIDE X X X - FT - FT E CHLORODIPHENIL X X X X - K - G E CHLOROFORM (TRICHLOROMETHANE) X X X X X X X X X X X X X X X X X X X	Е	Е	E	Е	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	E	Ε	Е	Е	Е	Е	Е	E	E	Е		Е	E		Е	T	Е		Е		-		Е	FT		G	CHLORIC ACID (AQUEOUS)	ľ
C CHLORINE (HUMID) X X FT X FT - X E CHLORO PEROXIDE X X X X - FT - FT E CHLORO DIPHENIL X	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е	i	G	Œ	5	G		Е		FT		FT		FT	G		FΤ	CHLORINATED WATER 3%	ľ
CHLORINE (HUMID) X X FT X FT - X E CHLORO PEROXIDE X X X X - FT - FT E CHLORODIPHENIL X	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	(Х		Х		FT		Χ		G	Х		FΤ	CHLORINE (DRY)	ľ
CHLORODIPHENIL X	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	(Х		-		FT		Х		FT	Х		Х	CHLORINE (HUMID)	
CHLOROFORM (TRICHLOROMETHANE) X	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	E	:	Е	E	Т	FT		-	•	FT		-		Χ	Х		Х	CHLORO PEROXIDE	ľ
CHLOROSULFONIC ACID X	Е	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	:	Е	E	5	G		-		Χ		-		Χ	Χ		Х	CHLORODIPHENIL	ľ
CHROMIC ACID 10% X	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е	:	E	E	(Х		Х		Х		Х		Х	Х		Х	CHLOROFORM (TRICHLOROMETHANE)	ľ
CHROMIC ACID 25% X X X X X X X E CHROMIC ACID 50% X X X X X X X X E CITRIC ACID E E E G E	Е	Е	Е	E	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	(Х	Х	(Х		Х		Χ		Χ		Χ	Χ		Х	CHLOROSULFONIC ACID	ľ
CHROMIC ACID 50% X X X X X X X E E E G X X X X X E E E G E E E G E E E G E E E G X X X X E FT E E COCONUT OIL E G X X E FT E E	E	Е	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Ε	Е	Ε	Е	Е	Е	Е	Е	E	E	Е		Е	E	Т	FT	T	Х		G		Χ		Χ	Χ		Х	CHROMIC ACID 10%	ľ
CITRIC ACID E E E G E E E COAL TETRACHLORIDE FT X X - X X E COCONUT OIL E G X X E FT E E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	(Х		Х		G		Χ		Χ	Χ		Х	CHROMIC ACID 25%	ſ
COAL TETRACHLORIDE FT X X - X X X E COCONUT OIL E G X X E FT E E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		Е	E	(Х		Х		G		Х		Χ	Χ		Х	CHROMIC ACID 50%	ľ
COCONUT OIL E G X X E FT E E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е		E	E		Е		G		Е		G		G	Е		Е	CITRIC ACID	ľ
	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	E	:	E	E	(Х		Х		Х		-		Χ	Х	•	FT	COAL TETRACHLORIDE	ľ
COLZA OIL G G X X F - X F	E	E	E	E	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	Е	:	Е	E	Ē	Е		FT		Е		Χ		Χ	G		Е	COCONUT OIL	L
	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	Е	Е	Ε	Е	Е	Е	E	E	Е		Е	E	(Χ		-		Е		Χ		Χ	G		G	COLZA OIL	
COPPER CHLORIDE E E E FT E E E	E	E	Е	Е	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Е	E	E	E		Е	E		Е		Е		Е		FT		Е	Е		Е	COPPER CHLORIDE	
COPPER CYANIDE E E E FT E E E	E	Е	Е	Е	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Ε	Е	Е	Е	Е	E	E	E	Ė	Е	E		Е		Е		Е	J	FT		Е	Е		Е	COPPER CYANIDE	ĺ
COPPER HYDROXIDE X G E - E - E -	E	Е	Е	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	Е		-	_		Е		-		Е		-		Е	G		X	COPPER HYDROXIDE	Ĺ
COPPER NITRATE E E E FT E - E E	E	Е	E	E	Е	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	E		Е	E		Е		-		Е		FT	Ĺ	Е	Е		Е	COPPER NITRATE	Ĺ
COPPER SULPHATE (AQUEOUS) E E E FT E G E E	E	Е	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	Е	:]	Е	E		Е		G		Е		FT		Е	Е		Е	COPPER SULPHATE (AQUEOUS)	ĺ
CORN OIL E G X X G FT E E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	E	:	Е	E		Е		FT		G		Х		Χ	G		Е	CORN OIL	Ĺ
COTTONSEED OIL E G X X E FT G E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	E	E	E	:	Е	E	i	G		FT		Е		Х		Χ	G		Е	COTTONSEED OIL	Ĺ
CREOSOTE X X X X G X G E	Е	Е	Е	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	E	Е	Е	Е	Е	E	E	E	:	Е	E	ò	G		Х		G	J	Х		Х	Х		X	CREOSOTE	ſ
CRESOLS FT FT X X X - G E	E	Е	Е	Е	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	E	Е	Е	E	Е	E	E	E	:	Е	E	ò	G		-		Х	J	Х		Х	FT		FT	CRESOLS	ĺ
CRUDE OIL FT X X X X X X E	E	Е	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Ε	Е	Е	Е	Е	E	E	E	Ė	Е	E	(Х		Х		Х		Х		Х	Х		FT	CRUDE OIL	ſ
C CYCLOEXANE (HEXAIDROBENZENE) E X X X X X X E	E	Е	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Ε	Е	Е	Е	Е	Е	E	E	Е		Е	E	(Χ		Х		Х		Х		Х	Х		Е	CYCLOEXANE (HEXAIDROBENZENE)	Ĺ
CYCLOEXANOL G E G X X - G E	E	Е	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Е	Е	Е	E	Е	Е	Е	Е	E	E	E	:]	Е	E	ò	G		-		Х		Х	Ĺ	G	Е		G	CYCLOEXANOL	Ĺ
CYCLOHEXANONE X X X X FT G G X	Е	Е	E	E	E	E	Е	Е	Е	Е	Е	Е	Е	Е	Е	Ε	Ε	Е	Ε	Е	Ε	Е	Е	Е	E	E	E	(Χ	Х	ŝ	G		G		FT		Х		Χ	Χ		X	CYCLOHEXANONE	

FLUID COMPATIBILITY

	CHEMICALS	NBR / X-NBR	CHLOROPRENE	SBR	NR	ЕРОМ / ЕРМ	CIIR	VMQ	FKM	FEP	UHMWPE
	DECAHYDRONAPHTALENE (DECALIN)	G	Х	Χ	Χ	Χ	Χ	Χ	Е	Е	Е
	DETERGENTS SYNTHETIC 20°C	Е	Е	Е	FT	E	Ε	E	Е	Е	E
	DIACETONE ALCOHOL	Χ	FT	Χ	FT	Е	Е	Е	Χ	Е	G
	DIAMINE ETHYLENE	G	Е	Е	FT	Е	-	FT	G	Е	E
	DIBENZYL ETHER	Х	Х	Х	Х	G	G	G	Е	Е	-
	DIBUTHYL PHTLATE	G	FT	FT	Х	Х	FT	-	G	Е	FT
	DIBUTHYL SEBACATE	Х	Х	Х	Х	G	FT	Е	G	Е	Е
	DIBUTHYLAMINE	Х	Х	Х	Х	Х	Х	FT	Х	Е	-
	DIBUTHYLKETONE	Х	FT	FT	Χ	G	G	-	-	Е	G
	DICHLORBENZENE	FT	Х	Х	Х	Х	Х	Х	Е	Е	FT
	DICHLORETHYLENE	Х	Х	Х	Х	Х	Х	Х	G	Е	Х
	DICHLOROMETHANE	FT	Х	Х	Х	Х	Х	Х	G	Е	Х
	DIESEL FUEL (50°C) - FLUID TRANSFER ONLY	Е	FT	Х	Х	Х	Х	Х	Е	Е	Х
	DIESEL FUEL BIO RME	Е	FT	Х	Х	Х	Х	Х	E	E	Х
	DIESEL OIL	G	FT	Х	Х	Х	Х	Х	E	Е	G
	DIETHANOLAMINE	FT	-	-	FT	Е	E	-	-	E	Е
D	DIETHYL ESTER OF ADIPIC ACID	Х	FT	FT	-	Е	-	-	Х	Е	-
	DIETHYL ETHER	Х	FT	Х	Х	Х	-	Х	Х	Е	Х
	DIETHYLAMINE	FT	FT	G	FT	G	-	G	X	E	FT
	DIETHYLBENZENE	Х	Х	X	X	X	Х	X	-	E	-
	DIETHYLENE GLYCOL	Е	E	E	G	E	-	G	Е	E	Е
	DIETHYLPHTALATE (DEPH)	X	X	X	X	X	-	-	FT	E	E
	DIMETHYLAMINE	X	X	X	FT	G	-	-	X	E	FT
	DIMETHYLANILINE	X	X	FT	-	G	Х	G	E	E	-
	DIMETHYLETHER	FT	FT	Х	Х	X	-	-	FT	E	G
	DIMETHYLFORMAMIDE	G	FT	E	-	G	G	G	X	E	E
	DIOCTYL PHTHALATE	Х	X	X	Х	G	-	FT	G	E	FT
	DIOCTYL SEBACATE	X	X	X	-	G	FT	FT	G	E	
	DIOXIN	X	X	X	_	G	G	X	X	E	Е
	DIPHELYL	FT	X	X	_	Х	Х	X	E	E	G
	DIPHENIL OXIDE	Х	X	X	-	X	-	G	FT	E	-
	DISTILLED WATER	E	E	E	E	E	E	E	E	E	E
	DODECYL ALCOHOL	E	E	-	-	E	G	-	E	E	-
	EPICHLOROHYDRIN (LIQUID)	X	X	Х	_	G	G	Х	X	E	E
	ESSENCES WITH HIGH AROMATIC CONTENT	G	FT	X		Х	Х	X	E	E	X
	ESSENCES WITH THAT AROMATIC CONTENT ESSENCES WITH LOW AROMATIC CONTENT	E	FT	X		X	X	X	E	E	X
	ESSENTIAL OILS	G	Х	X	Х	-	X	X	E	E	X
	ETHANE (GAS)	E	G		-		X		E	E	E
		G		X E	FT	X E	G	FT FT		E	E
	ETHANOLAMINE		E FT				G		G	E	G
	ETHIL ACEVIATE (ETHINI ACEVIAC FETER)	X	_	FT	X	G		G	X	E	-
	ETHYL ACRYLATE (ETHYLACRILIC ESTER)	X	FT	FT	X	G	G	G	X		
_	ETHYL ALCOHOL	E	E	E	G	E	E	E	E	E	E
E	ETHYL BENZENE	FT	X	X	Х	X	X	X	G	E	X
	ETHYL BROMIDE	E	E	G	-	E	X	X	E	E	G
	ETHYL CHLORIDE (CHLOROETHYL)	X	X	X	X	X	FT	X	G	E	X
	ETHYL ETHER	X	FT	X	Х	X	-	Х	X	E	X
	ETHYL GLYCOL	X	X	G	-	G	G	-	X	E	E
	ETHYL MERCAPTAN	X	FT	X	-	FT	X	FT	X	E	-
	ETHYLENE (GAS)	E	G	Х	Х	-	Х	G	E	E	E
	ETHYLENE CHLORIDE (DICHLOROETHYLENE)	FT	FT	FT	Х	G	Х	Х	E	E	Х
	ETHYLENE GLYCOL	Е	E	G	G	E	E	E	E	E	E
	ETHYLENE OXIDE	X	Х	Х	-	FT	FT	X	Х	E	Х



CON	IPATIBILITY BEHAVIOUR OF TUBE POLYMERS CONTACTING FLUI	ו) כעו	JAJL	D 01		-IVAI	OKL	DAI	٠,		
	CHEMICALS	NBR / X-NBR	CHLOROPRENE	SBR	N N	ЕРОМ / ЕРМ	CIIR	VMQ	Ε Ε Ε	FEP	UHMWPE
	FERROUS CHLORIDE (AQUEOUS)	Е	E	Е	G	Е	-	Е	Ε	Е	Е
	FERROUS SULPHATE	Е	Е	Е	-	Е	-	Е	Е	Е	Е
	FLUORINE	-	-	-	-	FT	-	-	G	Е	Х
	FLUOROBENZENE	Х	Х	Х	-	Х	Х	Х	Е	Е	-
	FLUOROBORIC ACID 65%	G	G	G	FT	G	-	Х	-	Е	Е
	FLUOROSILICIC ACID	G	FT	Е	FT	G	-	Х	Х	Е	Е
	FORMALDEHYDE	G	G	G	FT	G	G	Е	Е	Е	Е
F	FORMALIN	G	Е	Е	FT	Е	-	G	Е	Е	Е
	FORMIC ACID	G	Е	Е	FT	Е	-	G	FT	Е	G
	FUEL A (ISO-OCTANE)	Е	FT	Х	Х	Х	Х	Х	Е	Е	Х
	FUEL B (70% ISO-OCTANE, 30% TOLUENE)	G	FT	Х	Х	Х	Х	Х	Е	Е	Х
	FUEL C (50% ISO-OCTANE, 50% TOLUENE)	G	Х	Х	Х	Х	Х	Х	Е	Е	Х
	FUEL HIGH AROMATIC	FT	Х	Х	Х	Х	Х	Х	Е	Е	Х
	FUEL LOW AROMATIC	G	Х	Х	Х	Х	Х	Х	Е	Е	Х
	FURFURYL ALCOHOL	Х	G	G	Х	G	G	G	FT	Е	Х
	GALLIC ACID	Х	Х	FT	-	G	G	Е	E	Е	Е
_	GLUCOSE	Е	Е	Е	G	Е	Е	Е	Е	Е	Е
G	GLYCERINE	Е	Е	Е	G	Е	Е	Е	FT	Е	Е
	GREASY ACIDS IN GENERAL	G	G	FT	-	FT	Х	FT	Е	Е	FT
	HELIUM	Е	Е	Е	G	Е	Е	Е	Е	Е	Е
	HEPTANE	Е	G	Х	Х	Х	Х	Х	Е	Е	Е
	HEXALDEHYDE	Х	G	FT	Х	G	G	FT	-	Е	Е
	HEXANE	Е	Е	Х	Х	Х	Х	Х	Е	Е	Е
	HEXIL ALCOHOL (HEXANOL)	G	G	Е	G	Е	-	FT	-	Е	Е
	HYDRAULIC BRAKES FLUID	G	FT	Х	Х	Х	FT	Х	E	Е	G
	HYDRAULIC OILS ESTER BASED	G	Х	Х	Х	G	Х	Х	G	G	-
	HYDRAULIC OILS GLYCOL BASED	Е	G	Х	Х	Е	FT	G	FT	Е	Е
	HYDRAULIC OILS MINERAL BASED	Е	FT	Х	Х	Х	Х	Х	Е	Е	FT
	HYDRAULIC OILS PHOSPHATE ESTER BASED	Х	Х	Х	Х	G	G	G	Е	Е	Х
	HYDRAZINE	G	G	G	Х	Е	Е	Х	Х	Е	Е
	HYDRAZINE HYDRATE (AQUEOUS)	FT	FT	Х	Х	Е	G	FT	Е	Е	Е
Н	HYDROBROMIC ACID	FT	G	FT	G	G	Е	G	Е	Е	Е
	HYDROCHLORIC ACID (GAS)	Χ	Χ	Х	Х	G	G	-	Х	Е	Е
	HYDROCHLORIC ACID 15% (MURIATIC ACID)	G	FT	Е	G	Е	FT	Е	Ε	Е	E
	HYDROCHLORIC ACID 38% (MURIATIC ACID)	FT	FT	G	FT	Е	Χ	FT	Ε	Е	E
	HYDROCYANIC ACID 20%	FT	FT	Χ	Χ	Е	-	G	Е	Е	-
	HYDROFLUORIC ACID 10%	FT	Χ	FT	Χ	Χ	-	E	G	Е	G
	HYDROFLUORIC ACID 30%	Χ	Χ	Χ	Χ	Χ	-	E	G	Е	G
	HYDROFLUORIC ACID 75%	Χ	Χ	Χ	Χ	Χ	-	G	G	Е	Х
	HYDROGEN (GAS)	Е	E	G	FT	Е	G	FT	Е	Е	E
	HYDROGEN PEROXIDE 10% (PERHYDROL)	FT	Х	FT	Χ	G	G	Е	G	E	G
	HYDROGEN PEROXIDE 30% (PERHYDROL)	Χ	Х	Χ	Χ	G	G	E	E	E	E
	HYDROGEN SULPHIDE	Х	FT	Х	Χ	E	E	-	G	-	-
	IODINE (ALCOHOLIC SOL. 5-10%)	G	Х	G	-	G	-	Χ	E	Е	FT
	ISOBUTYL ALCOHOL	G	E	G	FT	Е	E	E	E	Е	E
	ISO-OCTANE	Е	G	Χ	Χ	Χ	Χ	Е	Е	Е	Х
	ISOPROPYL ACETATE	Χ	Х	FT	Χ	G	G	G	Χ	Е	-
	ISOPROPYL ALCOHOL	G	Е	Е	G	Е	Е	Е	Е	Е	E
	ISOPROPYL BENZOL	Х	Х	Х	G	Χ	-	Χ	E	Е	-
	ISOPROPYL CHLORIDE	Χ	-	Χ	-	Χ	-	-	Ε	Е	-
	ISOPROPYL ETHER	FT	FT	Χ	Χ	FT	Χ	-	FT	Е	FT
											_

FLUID COMPATIBILITY

COMI ATTOIL	LITT BEHAVIOUR OF TOBE POLIMERS CONTACTIN	IO I LOIDS	(,,	AJL	<u> </u>		-11//11	0112	<u> </u>	,		
	CHEMICALS	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	אסאו־א / אסאו	CHLOROPRENE	SBR	N R	EPDM / EPM	CIIR	ŎΜΛ	Σ X	FEP	UHMWPE
	LACTIC ACID (AQUEOUS)	FT	Т	FT	G	FT	G	G	Е	Е	Е	G
	LANOLIN	E	•	G	Х	-	FT	-	FT	Е	Е	G
	LAURYL ALCOHOL	E		Ε	-	-	E	-	-	E	Е	-
L	LEAD ACETATE (AQUEOUS)	E		Ε	Е	FT	Е	E	Ε	-	Е	Е
	LEAD NITRATE	E		Ε	Е	-	Е	E	G	-	E	-
	LEAD SULPHATE	E		Ε	Е	G	Е	E	Е	-	Е	Е
	LINSEED OIL	E		G	Х	Χ	FT	FT	Е	Е	Е	Х
	MAGNESIUM CHLORIDE (AQUEOUS)	E	•	Е	Е	G	Е	Е	Е	Е	Е	Е
	MAGNESIUM HYDROXIDE	G	5	Е	G	FT	Е	E	-	Е	Е	-
	MAGNESIUM SILICATE (TALC)	E		Е	Е	-	Е	E	Е	E	Е	Е
	MAGNESIUM SULPHATE	G	5	Е	G	G	Е	Е	Е	Е	Е	Е
	MAGNESIUM SULPHITE (AQUEOUS)	Е		Е	Е	-	Е	Е	Е	Е	Е	Е
	MALEIC ACID (AQUEOUS)	Х	(Х	FT	Х	FT	Х	-	Е	Е	Е
	MALIC ACID (AQUEOUS)	E	_	E	E	FT	Е	Х	E	Е	Е	Е
	MERCURY	E		E	E	G	Е	Е	E	Е	Е	Е
	MERCURY CHLORIDE	FT	Т	G	Е	-	Е	Е	Е	Е	Е	Е
	MERCURY NITRATE	E		E	Е	-	Е	Е	E	-	Е	Е
	MESITYL OXYDE	Х	(Х	Х	Х	G	Х	Х	Х	Е	-
	METHANE (GAS)	Е	_	FT	Х	Х	FT	Х	FT	Е	Е	Е
M	METHIL ACETATE	X	_	Х	Х	Х	G	G	Х	X	E	E
	METHYL ALCOHOL (METHANOL)	E	_	E	E	G	E	E	E	G	E	E
	METHYL CHLORIDE	Х		Х	FT	Х	G	FT	Х	FT	Е	Х
	METHYL GLYCOL	-		G	X	-	G	-	-	X	E	E
	METHYL PHTHALATE	X	(X	Х	-	G	-	-	G	E	-
	METHYLAMINE (AQUEOUS)	X	_	E	E	-	E	-	-	E	E	E
	METHYLETHYLKETONE	X	_	X	X	Х	G	FT	FT	X	E	E
	METHYLISOBUTHYLKETONE	X	_	X	Х	-	FT	FT	FT	X	E	E
	METHYLMETACRYLATE	X	_	X	X	Х	X	X	-	X	E	G
	MILK	-	_	-	-	-	E	E	G	-	G	E
	MONOCHLOROACETIC ACID	X		Х	Х	FT	G	E	X	Х	E	X
	MONOCHLOROBENZOL	X		X	X	-	Х	-	FT	G	E	Х
	NAPHTA (OIL)	E	_	X	X	Х	Х	Х	G	E	E	Х
	NATURAL GAS	E	_	E	E	Х	E	X	X	E	E	E
	NATURAL GAS (HUMID)	E	_	E	FT	X	FT	X	X	E	E	G
	NICKEL SULPHATE (AQUEOUS)	E	_	E	E	G	E	E	E	E	E	E
	NITRIC ACID 10%	FI	_	FT	FT	Х	E	-	FT	G	E	E
	NITRIC ACID 25%	X	_	Х	X	X	E	-	X	G	E	E
	NITRIC ACID 40%	X		X	X	X	G	-	X	G	E	X
N	NITRIC ACID 60%	X		X	X	X	FT	-	X	G	E	X
	NITROBENZENE	X		X	FT	X	X	FT	X	G	E	X
	NITROGEN	E		E	E	G	E	E	E	E	E	E
	NITROPROPANE	X		X	X	-	G	G	X	X	E	
	NITROPROPANE	FT	_	X	X	-	FT	FT	-	FT	E	E
	NITROTOLUENE NITROUS OXIDE (GAS)	E	_	E	E	G	E	-	E	E	E	E
	NONYLALCOHOL (NONANOL)	X	_	E	X	-	E	-	G	E	E	E
	NONTLALCORUL (NUNANUL)	X	`	С	٨	_			G		C	Е



	CHEMICALS	NBR / X-NBR	CHLOROPRENE	SBR	NR	EPDM / EPM	CIIR	VMQ	FKM	ЕБ	UHMWPE
	OCTANE	E	FT	Χ	Χ	Χ	Х	Χ	E	E	E
	OCTYL ALCOHOL	G	E	G	FT	E	G	G	E	Е	E
	OIL & GREASES ANIMAL BASED	E	G	Χ	Х	G	Х	FT	E	E	E
	OIL & GREASES MINERALS BASED UP TO °C	120	80	Χ	Χ	Χ	Х	Χ	200	130	70
	OIL & GREASES SILICONE BASED	Е	Е	Е	G	Е	Х	G	Е	E	E
	OIL & GREASES VEGETABLE BASED	Е	FG	FT	Χ	FT	FT	FT	Е	E	G
0	OIL IRM (ASTM) N°1, 100°C	Е	G	Χ	Χ	Χ	Х	G	Е	Е	G
	OIL IRM (ASTM) N°2, 100°C	Е	G	Χ	Χ	Χ	Χ	FT	G	Е	FT
	OIL IRM (ASTM) N°3, 100°C	Е	FT	Χ	Χ	Χ	Χ	FT	G	E	FT
	OLEIC ACID	G	FT	Χ	Χ	Χ	Χ	Χ	G	Е	G
	OLIVE OIL	Е	E	Χ	Χ	FT	G	G	Е	Е	Е
	OXALIC ACID	G	G	G	Х	G	E	Е	Е	Е	E
	OXYGEN UP TO °C	Χ	90	Х	FT	120	120	175	200	130	70
	OZONE	Χ	G	Х	Χ	E	G	Е	Е	Е	G
	PALM OIL	E	G	Χ	Χ	Е	G	Е	Е	Е	Χ
	PALMITIC ACID	FT	G	FT	Х	FT	G	Е	G	Е	Е
Р	PARAFFIN, PARAFFIN OIL	Е	G	Х	Х	FT	Х	G	E	Е	FT
P	PARAFORMALDEHYDE	G	G	FT	-	G	E	Е	G	Е	Е
	PENTACHLOROPHENOL	Χ	Χ	Χ	-	G	Е	FT	-	Е	-
	PENTANE	Е	Е	Х	Χ	Х	Х	Х	-	Е	Х

FLUID COMPATIBILITY

001	PATIBILITY BEHAVIOUR OF TUBE POLYMERS CONTACTING FLOT	ו) כם	JAJL	D 011		-11///-1	OIL	מאות	٦,		
	CHEMICALS	NBR / X-NBR	CHLOROPRENE	SBR	N N	ЕРОМ / ЕРМ	CIIR	VMQ	FKM	FEP	UHMWPE
	PERCHLORIC ACID (AQUEOUS)	FT	FT	G	Χ	G	G	Χ	Е	Е	Е
	PERCHLOROETHYLENE (TETRACHLOROETHYLENE)	FT	Х	Х	Х	X	Х	G	Е	Е	Х
			_								-
	PETROLEUM 70°C	G	FT	Х	Х	Х	Х	Х	E	G	FT
	PHENOL (PHENIC ACID)	X	FT	FT	Х	X	Х	G	E	E	Х
	PHOSPHORIC ACID 20%	FT	G	FT	G	Е	-	G	E	Е	E
	PHOSPHORIC ACID 50%	G	E	Ε	FT	E	-	G	Е	Ε	E
	PHOSPHORIC ACID 85%	FT	Е	Е	FT	Е	-	FT	Е	Е	Е
	PHOSPHOROUS OSSYCHLORIDE (PHOSPHORYL CHLORIDE)	Х	Х	Х	-	Е	-	-	Е	Е	FT
	PHOSPHORYL CHLORIDE	Х	Х	X	-	G	-	-	E	E	FT
		X	E	E		E	E	-	X	E	E
	PHTHALIC ACID		_								-
	PICRIC ACID (TRINITROPHENOL)	FT	FT	FT	FT	E	E	E	G	E	E
	PINE OIL	G	Х	Χ	Χ	Χ	Х	G	E	Е	FT
	POTASSIUM ACETATE (AQUEOUS)	G	G	Χ	Χ	Е	E	Χ	Χ	Ε	E
	POTASSIUM BICARBONATE (AQUEOUS)	Е	Е	Е	G	Е	Е	Е	Е	Е	Е
	POTASSIUM BROMIDE	Е	Е	Е	-	Е	Е	Е	Е	Е	Е
	POTASSIUM CARBONATE (POTASH)	Е	Е	Е	G	Е	Е	Е	Е	Е	E
	POTASSIUM CHLORATE	E	E	 E	-	E	E	G	E	 E	E
			_								-
	POTASSIUM CHLORIDE	E	E	E	G	E	E	E	E	E	E
	POTASSIUM CYANIDE	E	E	E	G	E	E	E	G	E	E
	POTASSIUM DICHROMATE	G	FT	FT	-	E	E	Е	Е	Е	E
	POTASSIUM HYDROXIDE (CAUSTIC POTASSIUM)	Е	E	Е	FT	Е	E	FT	Е	Е	Е
	POTASSIUM HYPOCHLORITE (JAVEL WATER)	G	Х	G	-	G	Е	G	Е	Е	FT
Р	POTASSIUM IODIDE 10% (AQUEOUS)	E	Е	FT	FT	E	Е	-	E	Е	Е
	POTASSIUM NITRATE (AQUEOUS)	E	E	E	G	E	E	E	E	 E	E
											-
	POTASSIUM PERMANGANATE 10 % (AQUEOUS)	G	FT	FT	-	E	E	E	E	E	E
	POTASSIUM PHOSPHATE	E	G	E	-	E	E	Х	E	E	E
	POTASSIUM SULPHATE	E	E	Е	-	Е	E	Е	E	Е	E
	POTASSIUM SULPHITE	E	E	Ε	-	E	E	Ε	Е	Ε	E
	PROPANE (GAS)	Е	G	G	Χ	FT	Х	Χ	Е	Е	G
	PROPANE (LIQUID)	Е	G	Х	Х	Х	Х	FT	Е	Е	Х
	PROPIONIC ACID	X	FT	Х		E	E	-	E	E	E
								-			-
	PROPYL ACETATE	X	E -	X	X	E	G		X	E	G
	PROPYL ALCOHOL	G	E	E	G	E	E	G	E	E	E
	PROPYL AMINE	X	Χ	Х	-	X	E	Χ	Χ	E	-
	PROPYLENE	FT	Х	Χ	Χ	Χ	Х	Χ	Ε	Е	-
	PROPYLENE CHLORIDE	X	Х	Χ	Χ	X	Х	Χ	-	Ε	Х
	PROPYLENE GLYCOL	FT	Е	Е	G	Е	G	Е	Е	Е	Е
	PROPYLENE GLYCOL	G	Е	E	G	Е	E	-	E	E	E
	PROPYLENE OXIDE	Х	X	X	-	G	G	Х	X	E	-
	PRUSSIC ACID 20% (HYDROCYANIC ACID)	FT	FT	G	X	E	-	G	G	E	E
	PRUSSIC ACID 80% (CONC.)	FT	FT	FT	Х	G	-	G	G	E	E
	PURINE	Е	E	Е	-	E	-	E	E	Е	E
	PYRANOLS (OIL FOR TRANSFORMER)	Е	Х	Χ	-	Χ	-	G	E	Е	FT
	PYRIDINE	Х	Х	Х	-	Е	G	Χ	FT	Е	E
	SEA WATER (BRINE, BRACKISH)	Е	G	G	G	Е	Е	Е	E	Е	Е
	SILICA	E	E	E		E	E	E	E	E	E
	SOAP AND SOAP SOLUTIONS	E	E	E	FT	E	E	E	E	E	E
											-
	SODIUM ACETATE	E	E	E	X	E	FT	E	G	E	E
	SODIUM BICARBONATE	E	E	E	G	E	E	E	E	E	E
	SODIUM BISULPHATE	Е	Е	Е	FT	E	-	Е	Е	Е	E
S	SODIUM BISULPHITE	Е	E	Е	FT	E	-	Е	Е	Е	E
3	SODIUM CARBONATE (SODIUM CALCINATE)	Е	E	Е	G	Е	Е	E	Е	Е	Е
	SODIUM CHLORATE	Е	Е	Е	-	Е	Х	Е	Е	Е	Е
	SODIUM CHLORIDE (KITCHEN SALT)	E	E	E	G	E	E	E	E	E	E
		E	E	E	X	E	-	E	E	E	E
	SODIUM CYANIDE										
	SODIUM DICHROMATE	FT	G	FT	Х	E	-	G	E	E	E
	SODIUM FLUORIDE	Е	E	E	-	E	E	G	E	E	E
	SODIUM HYDROXIDE 20°C (CAUSTIC SODA, SODIUM HYDRATE)	G	E	Е	Χ	E	E	G	FT	Е	E



CLEANING & SANITIZATION

CLEANING & SANITIZATION OF FOOD GRADE HOSES

The quality of food products depends on many factors from the composition and hygienic storage conditions of raw materials, to technology, production equipment, environment and stocking methods.

For this reason it is critical that, in addition to using common sense, all required production steps are correctly followed – especially those related to cleaning and sanitization of equipment.

Ryco rubber food hose products are ideal for use in the delivery of many dry and liquid foodstuffs and, if correctly cleaned and sanitized in accordance with industrial norms and specifications, will provide long lasting, reliable foodstuff conveyance with no adverse effects on the quality or taste of the product.

Due to the huge variation in cleaning regulations and requirements in the food industry **Ryco** does not presume to provide a definitive cleaning and sanitization handbook, but rather offers the following recommendations which the end user is free to determine the appropriate schedule and usage of.

Table 1

STEP	PRODUCT	CONC.	ТЕМР.	MAX. TIME	COMMENTS
PRE-WASH	DRINKING WATER	-	20°C	10 MINS	DRAINAGE & ELIMINATION OF ORGANIC SOLID WASTE
CLEANSING & WHITENING	LIQUID DETERGENT (SEE TABLE 2)	5% - 15%*	MAX. 100°C	15 MINS	SEE MANUFACTURER'S INSTRUCTIONS FOR CORRECT USAGE - RYCO ONLY INDICATES THE TEMPERATURE AND TIME THAT MUST NOT BE EXCEEDED
INTERMEDIATE RINSE	DRINKING WATER	-	20°C	5 MINS	DRAINAGE TO COMPLETE REMOVAL OF ORGANIC WASTE
SANITIZATION	PESTICIDES PURSUANT TO APPLICABLE LAW IN COUNTRY OF USE	5% - 15%*	MAX. 100°C	30 MINS	SEE MANUFACTURER'S INSTRUCTIONS FOR CORRECT USAGE - RYCO ONLY INDICATES THE TEMPERATURE AND TIME THAT MUST NOT BE EXCEEDED
FINAL RINSE	DRINKING WATER	-	20°C	10 MINS	CONTINUE TO FLUSH HOSE UNTIL ALL VISIBLE RESIDUE AND FOAM FROM DETERGENTS AND DISINFECTANTS IS REMOVED
FINAL DRYING & ANTI- MOLD TREATMENT	STATIC: DRAINING DYNAMIC: AIR BLOWING DRY & CLEAN	-	* †	10 MINS	RECOMMENDED TO ENSURE THAT FUTURE HOSE USE DOES NOT RESULT IN TASTE OR SMELL CONTAMINATION OF FOODSTUFFS

^{*} As indicated by the manufacturer

† According to convenience to avoid condensation

The recommendations listed below are intended to prevent damage to the rubber hoses. For more accurate cleaning & sanitization procedures follow your regional and national laws concerning foodstuff hose cleaning.

Table 2

PRODUCT	RUBBER COMPOUNDS	CONCENTRATION	TEMPERATURE
HOT WATER	ALL	0	MAX. 95°C
STEAM	ALL	0	MAX. 110°C
CAUSTIC SODA	A11	MAX. 2%	MAX. 85°C
CAUSTIC SODA	ALL	MAX. 5%	MAX. 25°C
NITRIC ACID	NO SBR/NR	MAX. 0.1%	MAX. 85°C
NITRIC ACID	NO SBK/NK	MAX. 2%	MAX. 25°C
CHLORINE ACETIC ACID	NO SBR/NR	MAX. 1%	MAX. 25°C
PER ACETIC ACID	NO SBR/NR	MAX. 1.5%	MAX. 25°C
PHOSPHORIC ACID	NO SBR/NR	MAX. 2%	MAX. 65°C
OTHER	T.B.C.	T.B.C.	T.B.C.

STORAGE OF HOSES AND ASSEMBLIFS

All hose products manufactured by Ryco are designed to be robust, reliable and long-lasting. Our proprietary rubber compounds are among some of the most advanced in the world and, as a company, we fully stand behind the quality and reliability of our products.

However, by its nature even the highest quality rubber will degrade over time, and certain environmental conditions have been categorically linked to an increase in the rate at which this deterioration can occur. Industrial standards such as **BS 5244**, **SAE J1273**, **DIN 20066**, **ISO 8331** & **ISO 2230** all vary in their recommendations of safe storage conditions and maximum shelf-life.

Ryco hoses can be safely stored for extended periods in most typical warehousing conditions, but in order to minimise deterioration of stored hoses Ryco recommends the following:

- Bulk hoses should be stored for no longer than 6 years (based on hose production date), including no more than 6 months storage time as assemblies.
- Extremes of temperature and humidity, along with abnormal fluctuations in temperature, can affect storage life. Ryco recommends a cool, dry storage location away from direct sunlight.
- If bulk hoses are stored coiled, the inside coil diameter should not be less than 2x the minimum bend radius of the specific hose. Coiled hoses should also never be stacked on top of one another.

HANDLING AND USAGE OF HOSES AND ASSEMBLIES

Ryco has a global reputation as one of the premium suppliers of high quality, robust rubber hoses. Our products are designed with ease of use and durability in mind, but as with any technical product it is important that Ryco hoses are used according to their purpose and within their limits of operation. This includes how the hoses are handled both before and during use.

HANDLING

Most precautions necessary when handling Ryco hoses are simple common sense and, as long as the user respects the technical nature of the hose and treats it accordingly, it is unlikely that they will encounter any issues caused due to incorrect handling.

A few considerations to bear in mind are:

- If a hose is twisted do not pull it suddenly to attempt to untwist it.
- Avoid dragging hoses over abrasive surfaces. If you are moving bulk hose or large assemblies, consider using pallets or other similar methods.

PRE-USAGE

All Ryco hoses are made to meet or exceed their stated specifications, so assuming the hose is properly assembled you can be confident that the hose will perform as expected without any issues.

To ensure that the hose is correctly assembled:

- Always ensure that the fittings are fully inserted into the hose and that the ferrule is crimped to the proper diameter according to the crimping data provided by the fitting manufacturer.
- It is advisable to perform pressure and leak testing on all assemblies prior to putting them into service. Testing should be carried out according to the relevant instructions for the testing equipment.

USAGE

Similarly, general good practice for the intended application will usually prevent any excessive wear or damage to the hose.

A few important considerations are:

- Do not kink or crush the hose as this can irreparably damage the hose reinforcement structure which can lead to bursting.
- · Only use the hoses to convey their intended fluids / substances.
- Do not exceed the stated working pressure of the hose.

MAINTENANCE

Ryco hoses are designed to be reliable and easy to maintain. Standard equipment maintenance schedules should be sufficient to ensure that any signs of damage or wear on hoses can be spotted well in advance of them becoming problematic.



REPAIR

Used rubber hoses are not usually considered to be repairable if signs of deterioration are noted during maintenance inspections. However, if damage or wear is limited to the ends of the hose then it may be possible to cut off the worn section and reassemble the hose. However, a reassembled hose will not have the expected service life of a new hose and should still be replaced according to the maintenance schedule as if it were the original hose assembly.

BRANDING OF HOSES

Ryco Industrial Hoses are clearly marked with indelible mylar tape and are branded with the Ryco logo.



www.ryco-hydraulics.com

