

## Flowtechnology U.K. Hydraulic Hose & Fittings Approvals & Certification

All products in the attached document have been designed, tested and manufactured to the appropriate international standard from the following list:

EN853, DIN853, DIN20022, SAE100R1, 2, 6, 7, 8, 13, 15, 17, EN857-1SC & 2SC, EN856-4SP, EN856-4SH, MSHAR2AT, PS1, PS2

Full product compatibility tests have been undertaken and the manufacturers can certify that the hose and fittings are a matched system, and can certify the accuracy of the information enclosed in this document.

Data covers

- Impulse
- Pressure
- Crimping
- Skive (where appropriate)
- Go and No Go

Signed the Manufacturer of Hose:



Position: General Manager  
Mr Deng Ji Sen



Official Stamp

Signed the Manufacturer of Fittings:



Position: General Manager  
Mr Chong er Wang



Official Stamp

# Hydraulic Hose, EN853, DIN20022, SAE100R1AT

Part Number	Size		ID		Wire Dimension		OD 1SN	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions FT1 - FT2 Type Ferrule	Size in mm	Crimping Dimensions FT3 Type Ferrule	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	min	max	min	max		Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm										
100R1AT-04	6.3	1/4	-4	7.0	10.6	11.6	14.1	22.5	3260	45	6525	90	13050	3.94	100	0.25	150000	FT1-12-04CF	17.5	18.3	3.86	3.67	3.67	3.67	3.45
100R1AT-05	8	5/16	-5	8.5	12.1	13.3	15.7	21.5	3120	43	6235	85	12325	4.53	115	0.31	150000	FT1-12-05CF	18.5	-	5.29	5.11	5.11	5.11	4.91
100R1AT-06	10	3/8	-6	10.1	14.5	15.7	18.1	18	2610	36	5220	72	10440	5.12	130	0.36	150000	FT1-12-06CF	21.15	21.3	6.78	6.42	6.42	6.42	6.13
100R1AT-08	12.5	1/2	-8	12.3	13.5	17.5	19.1	16	2320	32	4640	64	9280	7.09	180	0.45	150000	FT1-12-08CF	23.3	23.9	9.21	8.86	8.86	8.86	8.40
100R1AT-10	16	5/8	-10	15.5	16.7	20.6	22.2	13	1885	26	3770	52	7540	7.87	200	0.52	150000	FT1-12-10CF	26.8	28.0	12.09	11.59	11.59	11.59	10.99
100R1AT-12	19	3/4	-12	18.6	19.8	24.6	26.2	10.5	1520	21	3045	42	6090	9.45	240	0.65	150000	FT1-12-12CF	30.5	31.3	14.46	13.91	13.91	13.91	13.31
100R1AT-16	25	1	-16	25.0	26.4	32.5	34.1	8.8	1280	17.5	2540	35	5075	11.81	300	0.91	150000	FT1-12-16CF	39.0	39.7	18.89	18.29	18.29	18.29	17.68
100R1AT-20	31.5	1 1/4	-20	31.4	33.0	39.3	41.7	6.3	910	15	2175	25	3625	16.54	420	1.30	150000	FT1-12-20CF	48.4	48.8	25.40	24.69	24.69	24.69	23.80
100R1AT-24	38	1 1/2	-24	37.7	39.3	45.6	48.0	5	725	10	1450	20	2900	19.69	500	1.70	150000	FT1-12-24CF	56.8	58.5	31.40	30.60	30.60	30.60	29.80
100R1AT-32	51	2	-32	50.4	52.0	58.7	61.7	4	580	8	1160	16	2320	24.80	630	2.00	150000	FT1-12-32CF	69.3	72.2	41.40	40.60	40.60	40.60	30.80

# Hydraulic Hose, EN853, DIN20022, SAE100R2AT

Part Number	Size		ID		Wire Dimension		OD 2SN	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions FT1 - FT2 Type Ferrule	Size in mm	Crimping Dimensions FT3 Type Ferrule	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go	
	mm	inch	min	max	min	max		Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm											Mpa
100R2AT-04	6.3	1/4	-4	6.2	7.0	12.1	13.3	15.7	40	5800	80	11600	160	23200	3.94	100	0.36	200000	FT2-12-04CF	18.5	19.1	3.86	3.67	3.67	3.67	3.45
100R2AT-05	8	5/16	-5	7.7	8.5	13.7	14.9	17.3	35	5075	70	10150	140	20300	4.53	115	0.45	200000	FT2-12-05CF	19.5	-	5.29	5.11	5.11	5.11	4.91
100R2AT-06	10	3/8	-6	9.3	10.1	16.1	17.3	19.7	33	4785	66	9570	132	19140	5.12	130	0.54	200000	FT2-12-06CF	22.25	22.0	6.78	6.42	6.42	6.42	6.13
100R2AT-08	12.5	1/2	-8	12.3	13.5	19.0	20.6	23.0	27.5	3990	55	7975	110	15950	7.09	180	0.68	200000	FT2-12-08CF	24.4	24.5	9.21	8.86	8.86	8.86	8.40
100R2AT-10	16	5/8	-10	15.5	16.7	22.2	23.8	26.2	25	3625	50	7250	100	14500	7.87	200	0.80	200000	FT2-12-10CF	28.0	28.7	12.09	11.59	11.59	11.59	10.99
100R2AT-12	19	3/4	-12	18.6	19.8	26.2	27.8	30.1	21.5	3120	43	6235	85	12325	9.45	240	0.94	200000	FT2-12-12CF	32.0	32.2	14.46	13.91	13.91	13.91	13.31
100R2AT-16	25	1	-16	25.0	26.4	34.1	35.7	38.9	16.5	2390	32.5	4710	65	9425	11.81	300	1.35	200000	FT2-12-16CF	40.2	42.0	18.89	18.29	18.29	18.29	17.68
100R2AT-20	31.5	1 1/4	-20	31.4	33.0	43.3	45.7	49.5	12.5	1810	25	3625	50	7250	16.54	420	2.15	200000	FT2-12-20CF	50.0	53.0	25.40	24.69	24.69	24.69	23.80
100R2AT-24	38	1 1/2	-24	37.7	39.3	49.6	52.0	55.9	9	1305	18	2310	36	5220	19.69	500	2.65	200000	FT2-12-24CF	59.5	60.3	31.40	30.60	30.60	30.60	29.80
100R2AT-32	51	2	-32	50.4	52.0	62.3	64.7	68.6	8	1160	16	2320	32	4640	24.80	630	3.42	200000	FT2-12-32CF	72.3	73.4	41.40	40.60	40.60	40.60	30.80

# Multi Spiral Hydraulic Hose, EN856-4SP

Part Number	Size		ID		Wire Dimension		OD		Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions JMF56 Type Ferrule	Size in mm	Crimping Dimensions	Size in mm	Tail ID Top Tolerance mm	Tail ID Bottom Tolerance mm	Skive Length JMF56 in mm		Skive Length JMF57 in mm	Crimped No Go mm	Crimped Go mm
	mm	inch	min	max	min	max	min	max	Mpa	psi	Mpa	psi	Inch	mm	Mpa	psi									Internal	External			
4SP-04	6.3	1/4	-4	6.2	7.0	14.1	15.3	17.1	18.7	45	6525	90	13050	180	26100	5.91	150	0.64	400000										
4SP-06	10	3/8	-6	9.3	10.1	16.9	18.1	20.6	22.2	44.5	6450	89	12905	178	25810	7.09	180	0.75	400000	JMF57-06CF	22.8	6.78	6.42	27	—	6.42	6.13		
4SP-08	12.5	1/2	-8	12.3	13.5	19.4	21.0	23.8	25.4	41.5	6020	83	12035	166	24070	9.06	230	0.89	400000	JMF56-08CF	25.8	9.21	8.86	28	32	8.86	8.40		
4SP-10	16	5/8	-10	15.5	16.7	23.0	24.6	27.4	29.0	35	5075	70	10150	140	20300	9.84	250	1.10	400000	JMF57-10CF	28.8	12.09	11.59	33	—	11.59	10.99		
4SP-12	19	3/4	-12	18.6	19.8	27.4	29.0	31.4	33.0	35	5075	70	10150	148	21460	11.81	300	1.50	400000	JMF57-12CF	33.6	14.46	13.91	32	40	13.91	13.31		
4SP-16	25	1	-16	25.0	26.4	34.5	36.1	38.5	40.9	28	4060	56	8120	112	16240	13.39	340	2.00	400000	JMF57-16CF	41.5	18.89	18.29	42	48	18.29	17.68		
4SP-20	31.5	1.1/4	-20	31.4	33.0	45.0	47.0	49.2	52.4	21	3045	42	6090	84	12180	18.11	460	3.00	400000	JMF56-20CF	51.0	25.40	24.69	48	55	24.69	23.80		
4SP-24	38	1.1/2	-24	37.7	39.3	51.4	53.4	55.6	58.8	18.5	2680	37	5365	74	10730	22.05	560	3.40	400000	JMF57-24CF	59.5	31.40	30.60	60	68	30.60	29.80		
4SP-32	51	2	-32	50.4	52.0	64.3	66.3	68.2	71.4	16.5	2390	33	4785	66	9570	25.98	660	4.35	400000	JMF56-32CF	72.5	41.40	40.60	61	73	40.60	30.80		

# Multi Spiral Hydraulic Hose, EN856-4SH

Part Number	Size		ID		Wire Dimension		OD		Working Pressure		Pulse Pressure		Burst Pressure		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions JMF4SH Type Ferrule	Size in mm	Tail ID Top Tolerance mm	Tail ID Bottom Tolerance mm	Skive Length in mm		Crimped No Go mm	Crimped Go mm			
	mm	inch	min	max	min	max	min	max	Mpa	psi	Mpa	psi	Inch	mm							Internal	External					
4SH-12	19	3/4	-12	18.6	19.8	27.6	29.2	31.4	33.0	42	6090	84	12180	168	24360	11.02	280	1.70	400000	JMF4SH-12CF	35.1	14.46	13.91	16	43	13.91	13.31
4SH-16	25	1	-16	25.0	26.4	34.4	36.0	37.5	39.9	38	5510	76	11020	152	22040	13.39	340	2.50	400000	JMF4SH-16CF	43.4	18.89	18.29	18	59	18.29	17.68
4SH-20	31.5	1.1/4	-20	31.4	33.0	40.9	42.9	43.9	47.1	32.5	4710	65	9425	130	18850	18.11	460	3.00	400000	JMF4SH-20CF	50.0	25.40	24.69	21	68	24.69	23.80
4SH-24	38	1.1/2	-24	37.7	39.3	47.8	49.8	51.9	55.1	29	4205	58	8410	116	16820	22.05	560	3.60	400000	JMF4SH-24CF	56.0	31.40	30.60	23	76	30.60	29.80
4SH-32	51	2	-32	50.4	52.0	62.2	64.2	66.5	69.7	25	3625	50	7250	100	14500	27.56	700	5.00	400000	JMF4SH-32CF	72.4	41.40	40.60	28	80	40.60	30.80

## Pressure Wash Hose, Blue & Black, 1 Wire

Part Number	Size		ID		Wire Dimension		OD	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions	Size in mm	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	min	max	min	max		Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm										
PW****-04-10-R1	6.3	1/4	6.2	7.0	10.6	11.6	14.1	22.5	3260	45	6525	90	13050	3.94	100	0.25	-	FT1-12-04CF	17.5	FT3-12-04CF	18.3	3.86	3.67	3.67	3.45
PW****-05-10-R1	8	5/16	7.7	8.5	12.1	13.3	15.7	21.5	3120	43	6235	85	12325	4.53	115	0.31	-	FT1-12-05CF	18.5	FT3-12-05CF	-	5.29	5.11	5.11	4.91
PW****-06-10-R1	10	3/8	9.3	10.1	14.5	15.7	18.1	18	2610	36	5220	72	10440	5.12	130	0.36	-	FT1-12-06CF	21.15	FT3-12-06CF	21.6	6.78	6.42	6.42	6.13

## Pressure Wash Hose Blue & Black 2 Wire

Part Number	Size		ID		Wire Dimension		OD	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions	Size in mm	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	min	max	min	max		Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm										
PW****-04-100R2	6.3	1/4	6.2	7.0	12.1	13.3	15.7	40	5800	80	11600	160	23200	3.94	100	0.36	-	FT2-12-04CF	18.5	FT3-12-04CF	19.1	3.86	3.67	3.67	3.45
PW****-05-100R2	8	5/16	7.7	8.5	13.7	14.9	17.3	35	5075	70	10150	140	20300	4.53	115	0.45	-	FT2-12-05CF	19.5	FT3-12-05CF	-	5.29	5.11	5.11	4.91
PW****-06-100R2	10	3/8	9.3	10.1	16.1	17.3	19.7	33	4785	66	9570	132	19140	5.12	130	0.54	-	FT2-12-06CF	21.5	FT3-12-06CF	22	6.78	6.42	6.42	6.13

## 1 Wire Compact Hose, EN857- 1SC

Part Number	Size		ID		Wire Dimension		OD	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight	Impulse Test Rate	Crimping Dimensions	Size in mm	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	SAE	inch	mm	max		min	max	Mpa	psi	Mpa	psi	Mpa	psi										
1SC-04	6.3	1/4	-4	6.1	6.9	9.6	10.8	13.5	22.5	3260	45	6525	90	13050	2.95	75	0.20	150000	FR78-04	15.0	FR79-04	3.86	3.67	3.67	3.45
1SC-06	10	3/8	-6	9.3	10.1	12.7	14.5	16.9	18	2610	36	5220	72	10440	3.54	90	0.19	150000	FR78-06	18.6	FR79-06	6.78	6.42	6.42	6.13
1SC-08	12.5	1/2	-8	12.3	13.5	15.9	18.1	20.4	16	2320	32	4640	64	9280	5.12	130	0.23	150000	FR78-08	22.7	FR79-08	9.21	8.86	8.86	8.40
1SC-12	19	3/4	-12	18.6	19.8	23.2	24.4	26.7	10.5	1520	21	3045	42	6090	7.09	180	0.34	150000	-	-	14.46	13.91	13.91	13.31	

## 2 Wire Compact Hose, EN857- 2SC

Part Number	Size		ID		Wire Dimension		OD	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight	Impulse Test Rate	Crimping Dimensions	Size in mm	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	SAE	inch	mm	max		min	max	Mpa	psi	Mpa	psi	Mpa	psi										
2SC-04	6.3	1/4	-4	6.1	6.9	10.6	11.7	14.2	40	5800	80	11600	160	23200	2.95	75	0.30	200000	FT2-12-04CF	18.2	F2SC-04	3.86	3.67	3.67	3.45
2SC-06	10	3/8	-6	9.3	10.1	14.4	15.6	18.3	33	4785	66	9570	132	19140	3.54	90	0.42	200000	FT2-12-06CF	19	F2SC-06	5.29	5.11	5.11	4.91
2SC-08	12.5	1/2	-8	12.3	13.5	17.5	19.1	21.5	27.5	3990	55	7975	110	15950	5.12	130	0.54	200000	FT2-12-08CF	20.6	F2SC-08	6.78	6.42	6.42	6.13
2SC-12	19	3/4	-12	18.5	19.7	24.5	26.3	28.5	21.4	3120	43	6235	86	12470	7.86	200	0.80	200000	-	23.4	F2SC-12	9.20	8.86	8.86	8.40
2SC-16	25	1	-16	25.0	26.4	32.5	34.3	36.6	16.5	2390	33	4785	66	9570	9.84	250	1.15	200000	-	-	18.89	18.29	18.29	17.68	

## Multi Spiral Hydraulic Hose, SAE100 R13

Part Number	Size		ID		Wire Dimension		OD		Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions JMFR13 Type Ferrule	Size in mm	Tail ID Top Tolerance mm	Tail ID Bottom Tolerance mm	Skive Length in mm		Crimped No Go mm	Crimped Go mm	
	mm	inch	SAE	min	max	Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm	Internal	External												
100R13AT-12	19	3/4	-12	18.6	19.8	28.2	29.8	31.0	33.2	36	5075	70	10150	140	20300	9.45	240	2.10	500000	JMFR13-12CF	33.7	14.46	13.91	16	43	13.91	13.31
100R13AT-16	25	1	-16	25.0	26.4	34.9	36.4	37.6	39.8	35	5075	70	10150	140	20300	11.81	300	2.88	500000	JMFR13-16CF	41.5	18.89	18.29	18	59	18.29	17.68
100R13AT-20	31.5	1.1/4	-20	31.4	33.0	45.6	48.0	48.3	51.3	35	5075	70	10150	140	20300	16.54	420	4.20	500000	JMFR13-20CF	52.8	25.40	24.69	21	68	24.69	23.80
100R13AT-24	38	1.1/2	-24	37.7	39.3	53.1	55.5	55.8	58.8	35	5075	70	10150	140	20300	19.69	500	5.00	500000	JMFR13-24CF	60.5	31.40	30.60	23	76	30.60	29.80
100R13AT-32	51	2	-32	50.4	52.0	66.9	69.3	69.5	72.7	35	5075	70	10150	140	20300	25.20	640	7.00	500000	JMFR13-32CF	77.9	41.40	40.60	28	80	40.60	30.80

## Multi Spiral Hydraulic Hose, SAE100 R15

Part Number	Size		ID		Wire Dimension		OD		Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions JMFR13 Type Ferrule	Size in mm	Tail ID Top Tolerance mm	Tail ID Bottom Tolerance mm	Skive Length in mm		Crimped No Go mm	Crimped Go mm	
	mm	inch	SAE	min	max	Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm	Internal	External												
100R15AT-06	10	3/8	-6	9.3	10.1	20.3	23.3	23.3	23.3	42	6090	84	12180	168	24360	5.91	150	0.80	500000	-	-	-	-	-	-	-	
100R15AT-08	12.5	1/2	-8	12.3	13.5	24.0	26.8	26.8	26.8	42	6090	84	12180	168	24360	7.87	200	0.95	500000	-	-	-	-	-	-	-	
100R15AT-12	19	3/4	-12	18.6	19.8	32.9	36.1	36.1	36.1	42	6090	84	12180	168	24360	10.40	265	1.85	500000	JMFR13-12CF	33.1	14.46	13.91	16	43	13.91	13.31
100R15AT-16	25	1	-16	25.0	26.4	38.9	42.9	42.9	42.9	42	6090	84	12180	168	24360	13.00	330	2.90	500000	JMFR13-16CF	41.0	18.89	18.29	18	59	18.29	17.68
100R15AT-20	31.5	1.1/4	-20	31.4	33.0	48.4	51.5	51.5	51.5	42	6090	84	12180	168	24360	17.52	445	4.20	500000	JMFR13-20CF	53.7	25.40	24.69	21	68	24.69	23.80
100R15AT-24	38	1.1/2	-24	37.7	39.3	56.3	59.6	59.6	59.6	42	6090	84	12180	168	24360	20.87	530	5.60	500000	JMFR13-24CF	61.2	31.40	30.60	23	76	30.60	29.8

## Hydraulic Hose, SAE 100 R17

Part Number	Size		ID		Wire Dimension		OD		Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions FT1 - FT2 Type Ferrule	Size in mm	Crimping Dimensions FR79/FT3 Type Ferrule	Tail ID Top Tolerance mm	Tail ID Bottom Tolerance mm	Crimped No Go mm	Crimped Go mm	
	mm	inch	SAE	min	max	Mpa	psi	Mpa	psi	Mpa	psi	Inch	mm	Mpa	psi	Mpa										psi
100R17-04	6.3	1/4	-4	6.2	7.0	11.0	13.2	13.2	13.2	21	3045	42	6090	84	12180	1.97	50	0.169	200000	FR79-04	-	3.86	3.67	3.45		
100R17-05	8	5/16	-5	7.7	8.5	13.0	15.0	15.0	15.0	21	3045	42	6090	84	12180	2.17	55	0.210	200000	FR79-05	16.8	5.29	5.11	4.91		
100R17-06	10	3/8	-6	9.3	10.1	15.0	17.0	17.0	17.0	21	3045	42	6090	84	12180	2.56	65	0.254	200000	FR79-06	19.4	6.78	6.42	6.13		
100R17-08	12.5	1/2	-8	12.3	13.5	18.8	21.1	21.1	21.1	21	3045	42	6090	84	12180	3.54	90	0.466	200000	FT2-12-08CF	23.5	9.21	8.86	8.40		
100R17-10	16	5/8	-10	15.5	16.7	23.6	25.9	25.9	25.9	21	3045	42	6090	84	12180	3.94	105	0.586	200000	FT2-12-10CF	29	12.09	11.59	10.99		
100R17-12	19	3/4	-12	18.6	19.8	27.7	30.3	30.3	30.3	21	3045	42	6090	84	12180	4.72	125	0.749	200000	FT2-12-12CF	32	14.46	13.91	13.31		
100R17-16	25	1	-16	25.0	26.4	35.6	38.6	38.6	38.6	21	3045	42	6090	84	12180	5.91	150	1.457	200000	FT2-12-16CF	41	18.89	18.29	17.68		

# Hydraulic Hose, MSHA R2AT

Part Number	Size		ID		Wire Dimension		OD	Working Pressure		Pulse Pressure		Burst Pressure		Bend Radius		Weight Kg/mtr	Impulse Test Rate Cycles	Crimping Dimensions	Size In mm	Crimping Dimensions	Size In mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	SAE	min	max	min		max	Mpa	psi	Mpa	psi	Mpa	psi	Inch										
MSHARZAT-04	6.3	1/4	-4	6.2	7.0	12.1	13.3	15.7	40	5800	80	11600	160	23200	3.94	10	0.36	200000	FT12-04CF	18.5	19.1	3.86	3.67	3.67	3.45
MSHARZAT-06	10	3/8	-6	9.3	10.1	16.1	17.3	19.7	33	4785	66	9570	132	19140	5.12	130	0.54	200000	FT12-06CF	22.25	22	6.78	6.42	6.42	6.13
MSHARZAT-08	12.5	1/2	-8	12.3	13.5	19.0	20.6	23.0	27.5	3990	55	7975	110	15950	7.09	180	0.68	200000	FT12-08CF	24.4	24.5	9.21	8.86	8.86	8.40
MSHARZAT-12	19	3/4	-12	18.6	19.8	26.2	27.8	30.1	21.5	3120	43	6235	85	12325	9.45	240	0.94	200000	FT12-12CF	32	32	14.46	13.91	13.91	13.31
MSHARZAT-16	25	1	-16	25.0	26.4	34.1	35.7	38.9	16.5	2390	32.5	4710	65	9425	11.81	300	1.35	200000	FT12-16CF	40.2	41	18.89	18.29	18.29	17.68
MSHARZAT-20	31.5	1.1/4	-20	31.4	33.0	43.3	45.7	49.5	12.5	1810	25	3625	50	7250	16.54	420	2.15	200000	FT12-20CF	50	51.5	25.40	24.69	24.69	23.8
MSHARZAT-24	38	1.1/2	-24	37.7	39.3	49.6	52.0	55.9	9	1305	18	2310	36	5220	19.69	500	2.65	200000	FT12-24CF	59.5	59.7	31.40	30.60	30.60	29.80
MSHARZAT-32	51	2	-32	50.4	52.0	62.3	64.7	68.6	8	1160	16	2320	32	4640	24.80	630	3.42	200000	FT12-32CF	72.3	73.4	41.40	40.60	40.60	30.80

## Hydraulic Thermoplastic Hose, SAE 100 R7

Part Number	Size		SAE	ID		OD	Working Pressure		Burst Pressure		Bend Radius	Weight	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch		Mpa	psi		Mpa	psi	Mpa	psi								
100R7-03	5	3/16	-3	4.6	5.4	11.4	21.0	3045	84	12180	90	0.073	FR79-03	-	-	-	-	-
100R7-04	6.3	1/4	-4	6.2	7.0	13.7	19.2	2784	77	11165	100	0.090	FR79-04	-	3.86	3.67	3.67	3.45
100R7-05	8	5/16	-5	7.7	8.5	15.6	17.5	2538	70	10150	115	0.128	FR79-05	17	5.29	5.11	5.11	4.91
100R7-06	10	3/8	-6	9.3	10.3	18.4	15.7	2277	63	9135	125	0.155	FR79-06	19.4	6.78	6.42	6.42	6.13
100R7-08	12.5	1/2	-8	12.3	13.5	22.5	14.0	2030	56	8120	180	0.224	FR79-08	23.8	9.21	8.86	8.86	8.40

## Hydraulic Thermoplastic Hose, SAE 100 R8

Part Number	Size		SAE	ID		OD	Working Pressure		Burst Pressure		Bend Radius	Weight	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch		Mpa	psi		Mpa	psi	Mpa	psi								
100R8-04	6.3	1/4	-4	6.2	7	16.8	35	5075	140	20300	100	0.097	FR79-04	-	3.86	3.67	3.67	3.45
100R8-05	8	5/16	-5	7.7	8.5	-	-	-	-	-	-	-	FR79-05	16.7	5.29	5.11	5.11	4.91
100R8-06	10	3/8	-6	9.3	10.3	20.3	28	4060	112	16240	125	0.178	FR79-06	18.6	6.78	6.42	6.42	6.13
100R8-08	12.5	1/2	-8	12.3	13.5	24.6	24.5	3553	98	14210	180	0.216	FR79-08	22.5	9.21	8.86	8.86	8.40



## Smooth Bore PTFE Hose

Part Number	Size		ID		OD	Working Pressure		Burst Pressure		Bend Radius	Weight	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	SAE	min		max	Mpa	psi	Mpa								
SSPTFE-03	4.8	3/16	-3	4.8	5	7.7	24	3480	57	8265	50	0.090	10.9	-	-	-	-
SSPTFE-04	6.0	1/4	-4	6	6.4	8.8	23.2	3364	55.2	8004	75	0.110	12	3.86	3.67	3.67	3.45
SSPTFE-05	7.9	5/16	-5	7.9	8.2	10.8	19.4	2813	54	7830	100	0.135	-	5.29	5.11	5.11	4.91
SSPTFE-06	9.5	3/8	-6	9.7	10	12.4	16.2	2349	45	6625	125	0.165	15.9	6.78	6.42	6.42	6.13
SSPTFE-08	12.7	1/2	-8	12.7	13	15.9	13.9	2015.5	42.5	6162.5	165	0.230	20.8	9.21	8.86	8.86	8.40
SSPTFE-12	19.0	3/4	-12	19	19.3	22.3	9.2	1334	31.5	4567.5	230	0.405	28	14.46	13.91	13.91	13.31
SSPTFE-16	25.4	1	-16	25.2	25.6	29.8	7.2	1044	20	2900	300	0.510	34	18.89	18.29	18.29	17.68

## Convoluted Bore PTFE Hose

Part Number	Size		ID		OD	Working Pressure		Burst Pressure		Bend Radius	Weight	Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Crimped No Go	Crimped Go
	mm	inch	SAE	min		max	Mpa	psi	Mpa								
SSCPTFE-04	6.35	1/4	-4	5.75	6.55	11.3	15.1	2189.5	45	6625	32	0.177	12.5	3.86	3.67	3.67	3.45
SSCPTFE-05	7.50	5/16	-5	7.75	8.55	14.1	12.6	1827	37	5365	36	0.215	-	5.29	5.11	5.11	4.91
SSCPTFE-06	9.50	3/8	-6	9.14	10.25	17.2	10.5	1522.5	31	4495	59	0.230	16	6.78	6.42	6.42	6.13
SSCPTFE-08	12.70	1/2	-8	12.6	13.3	19.3	9	1305	25	3625	82	0.276	-	9.21	8.86	8.86	8.40
SSCPTFE-12	19.50	3/4	-12	18.6	19.85	28.1	6	870	22	3180	113	0.570	28	14.46	13.91	13.91	13.31
SSCPTFE-16	25.40	1	-16	24.8	26.16	37.6	4.7	661.5	14.4	2088	189	0.790	33.5	18.89	18.29	18.29	17.68

# Paint Spray & Sewer Jetting Hose, PS1 & PS2

Part Number	Size		ID	OD	Working Pressure		Burst Pressure		Crimping Dimensions	Size in mm	Tail ID Top Tolerance	Tail ID Bottom Tolerance	Internal Probe 'Go'	Internal Probe 'No Go'
	mm	inch			Mpa	psi	Mpa	psi						
PS1-04	6.4	1/4	6.4	11.7	32	4640	128	0	75-810	15.8	3.86	3.67	3.4	3.7
PS1-06	9.6	3/8	9.6	15.2	25	3625	100	0	75-820	18.7	6.78	6.42	5.8	6.2
PS1-08	12.7	1/2	12.7	18.5	19	2755	75	0	75-830	21	9.21	8.86	9.2	8.8
PS2-04	6.4	1/4	6.4	13.8	45	6525	180	0	75-812	17.3	3.86	3.67	3.4	3.7
PS2-06	9.6	3/8	9.6	17.5	38	5510	152	0	75-826	22	21.6	6.42	5.8	6.2
PS2-08	12.7	1/2	12.7	21.5	30	4350	120	0	75-835	26	24	8.86	9.2	8.8

## CERTIFICATE OF REGISTRATION



# ISOQAR

This is to certify that the Management System of:

**Flowtech Limited**

**Pimbo Road, Skelmersdale, Lancashire, WN8 9RB**

has been approved by ISOQAR



**012**

ISO 9001: 2008

**Scope of Activities:**

Supply of fluid power, industrial, commercial and agricultural components and associated engineering equipment.  
Assembly and supply of hoses.

Certificate Number:	<b>012</b>
Initial Registration Date:	<b>14 May 1992</b>
Re-issue Date:	<b>2 April 2013</b>
Expiry Date:	<b>14 May 2016</b>

Signed:  
(on behalf of ISOQAR)

This certificate will remain current subject to the company maintaining its system to the required standard. This will be monitored regularly by ISOQAR. Further clarification regarding the scope of this certificate and the applicability of the relevant standards' requirements may be obtained by consulting ISOQAR Ltd.

ISOQAR Limited Cobra Court, 1 Blackmore Road, Stretford, Manchester M32 0QY  
T: +44 (0)161 865 3699 F: +44 (0)161 865 3685 E: enquiries@isoqar.com www.isoqar.com

*This certificate is the property of ISOQAR and must be returned on request*

S566



THIS IS TO CERTIFY THAT

*VITASSEM*

having demonstrated that they produce hose assemblies to a standard set by the BFPDA have been awarded the British Fluid Power Distributors Association Seal of Approval for the production of hose assemblies.

Inspection Date: 26<sup>th</sup> January 2015

Valid Until: 25<sup>th</sup> January 2017

Signed:



This award certifies that at the time of inspection the above company's production of hose assemblies was to the standards recommended by the BFPDA but is not a quality guarantee of the hose assemblies.

U.S. Department of Labor

Mine Safety and Health Administration  
Approval and Certification Center  
765 Technology Drive  
Triadelphia, West Virginia 26059



In Reply Refer To:  
MSHA:A&CC:PAR 98670  
Record File No.IC-267/1

November 30, 2010

MSHA reviewed your application for acceptance of compound number 171 for use as yellow air hose cover.

This construction and the information provided meet the requirements of the Standard Application Procedures for Acceptance of Flame-Resistant Solid Products Taken into Mines.

The following requirements apply to this acceptance:

1. Acceptance Marking No. "**MSHA IC-267/1**" must be permanently marked on the product with letters at least 1/4" high and at intervals not exceeding 3 feet. Other types of permanent markings may be used with prior approval of MSHA.
2. The accepted material thickness is 2 mm  $\pm$  0.2 mm.
3. You are obligated, as the manufacturer, to maintain the quality of the product to assure the requirements of this acceptance are being met.
4. Any change in product composition or in any other factors that may affect this acceptance must not be made without prior authorization from MSHA.
5. We have the right to revoke this acceptance for cause at any time.
6. We must be notified of any transfer of production or ownership of this product.

An invoice for the cost of processing this action will be forthcoming.

If you have any comments or questions relative to this letter, please refer them to David Creamer at 304-547-2085.

Sincerely,

A handwritten signature in black ink that reads "John P. Faini".

John P. Faini  
Chief, Approval and Certification Center

U.S. Department of Labor

Mine Safety and Health Administration  
Approval and Certification Center  
765 Technology Drive  
Triadelphia, West Virginia 26059



In Reply Refer To:  
MSHA:A&CC:PAR 98669  
Record File No.IC-267

November 23, 2010

MSHA reviewed your application for acceptance of black compound number 080 for use as hydraulic hose cover.

This construction and the information provided meet the requirements of the Standard Application Procedures for Acceptance of Flame-Resistant Solid Products Taken into Mines.

The following requirements apply to this acceptance:

1. Acceptance Marking No. "**MSHA IC-267**" must be permanently marked on the product with letters at least 1/4" high and at intervals not exceeding 3 feet. Other types of permanent markings may be used with prior approval of MSHA.
2. The accepted material thickness is 2 mm  $\pm$  0.2 mm.
3. You are obligated, as the manufacturer, to maintain the quality of the product to assure the requirements of this acceptance are being met.
4. Any change in product composition or in any other factors that may affect this acceptance must not be made without prior authorization from MSHA.
5. We have the right to revoke this acceptance for cause at any time.
6. We must be notified of any transfer of production or ownership of this product.

An invoice for the cost of processing this action will be forthcoming.

If you have any comments or questions relative to this letter, please refer them to David Creamer at 304-547-2085.

Sincerely,

A handwritten signature in cursive script that reads "John P. Faini".

John P. Faini  
Chief, Approval and Certification Center