



JFD Ultrajewel Helmet Guidance Note

Background

It has been identified that JFD Ultrajewel helmets are being used with non-JFD diver reclaim systems. This guidance note is being issued to assist these users to operate the Ultrajewel helmet safely and achieve the best possible performance.





ISSUES

1. Helmet Performance

The JFD reclaim manual specifies suction pressure values for the diver reclaim umbilical that provide the best performance from the Ultrajewel Helmet. This information may not be available to some users who operate non–JFD reclaim systems. Additionally, these reclaim systems may not provide diver depth tracking, the use of which can be advantageous in certain situations (e.g. large depth excursions).

2. Safety

The JFD Gasmizer Reclaim system contains various safety devices to limit the risk to the diver in the event of possible component failures within the system. Other reclaim systems may or may not include these features.

The pressure levels in the Gasmizer system are set at values which also minimise the risk to the diver in the event of certain possible failures (e.g. bell BPR).



SOLUTION

- 1. JFD do not wish to discourage the use of the Ultrajewel helmet with non-JFD reclaim systems. The Regulator Setting Guidelines from the Gasmizer manual and are included within this guidance notice. These can be used to set the optimum supply and suction pressures at the helmet.
- 2. It is incumbent on the user to ensure that the reclaim system is configured such that it does not present an unacceptable risk to the diver in the case of any reasonably foreseeable component failure.

The user must ensure that the suction pressure at the helmet does not exceed 50msw at any time.



JFD Ultrajewel Helmet Guidance Note

Regulator Setting Guidelines – 1 Diver

1	2	3	4	5	- 6
Bell	BPR	Make-Up		Diver	Bell BPR
Depth	Loader	Req.	O ₂ Reg.	Supply	Loader
		_	_	(Bell)	
msw	Barg	Barg	Barg	Barg	msw
30	1.0	18.6	19.0	14.0	-15.0
35	1.4	19.3	19.0	14.0	-15.0
40	1.8	20.0	19.0	14.0	-15.0
45	2.2	20.7	19.0	14.0	-15.0
50	2.6	21.4	19.0	14.0	-15.0
55	3.0	22.1	19.0	14.0	-15.0
60	3.3	22.7	19.0	14.0	-15.0
65	3.7	23.4	19.0	14.0	-15.0
70	4.1	24.1	19.0	14.0	-15.0
75	4.5	24.8	19.0	14.0	-15.0
80 85	4.9 5.3	25.5 26.2	19.0 19.0	14.0	-15.0 -15.0
90	5.7	26.2	19.0	14.0	-15.0 -15.2
95	6.1	27.6	19.0	14.0	-15.2
100	6.5	28.2	19.0	14.0	-15.5 -15.8
105	6.9	28.9	19.0	14.0	-15.0
110	7.3	29.6	19.0	14.0	-16.3
115	7.8	30.3	19.0	14.0	-16.6
120	8.2	31.0	19.0	14.0	-16.9
125	8.7	31.7	19.0	14.0	-17.2
130	9.1	32.4	19.0	14.0	-17.5
135	9.6	33.1	19.0	14.0	-17.8
140	10.0	33.7	19.0	14.0	-18.1
145	10.5	34.4	19.0	14.0	-18.4
150	11.0	35.1	19.0	14.0	-18.7
155	11.4	35.8	19.0	14.0	-18.9
160	11.9	36.5	19.0	14.0	-19.2
165	12.3	37.2	19.0	15.0	-19.5
170	12.7	37.9	19.0	15.0	-19.8
175	13.2	38.6	19.0	15.0	-20.1
180	13.6	39.2	19.0	15.0	-20.4
185	14.1	39.9	19.0	15.0	-20.7
190	14.6	40.6	19.0	15.0	-21.0
195	15.0	41.3	19.3	15.0	-21.3
200	15.5	42.0	19.7	16.0	-21.5
205	15.9	42.3	20.0	16.0	-21.8
210	16.3	43.0	20.3	16.0	-22.1
215	16.8	43.8	20.7	16.0	-22.4
220	17.2	44.6	21.0	16.0	-22.7
225	17.7	45.3	21.3	16.0	-23.0
230	18.1	46.1	21.7	16.0	-23.3
235	18.6	46.8	22.0	17.0	-23.6
240 245	19.0 19.5	47.6 48.4	22.3	17.0 17.0	-23.8 -24.1
245	20.0	48.4	23.0	17.0	-24.1 -24.4
200	20.0	43.1	2.0.0	17.0	-24.4

1	2	3	4	5	- 6
Bell	BPR	Make-Up		Diver	Bell BPR
Depth	Loader	Reg.	O ₂ Reg.	Supply	Loader
				(Bell)	
msw	barg	barg	barg	barg	msw
255	20.4	49.9	23.3	17.0	-24.7
260	20.7	50.7	23.7	17.0	-25.0
265	21.3	51.4	24.0	18.0	-25.3
270	21.7	52.2	24.3	18.0	-25.6
275	22.2	52.9	24.7	18.0	-25.9
280	22.6	53.7	25.0	18.0	-26.2
285	23.1	54.5	25.3	18.0	-26.4
290	23.5	55.2	25.7	18.0	-26.7
295	24.0	56.0	26.0	18.0	-27.0
300	24.5	56.8	26.3	19.0	-27.3
305	24.9	57.5	26.7	19.0	-27.6
310	25.3	58.3	27.0	19.0	-27.9
315	25.7	59.0	27.3	19.0	-28.2
320	26.2	59.8	27.7	19.0	-28.5
325	26.7	60.6	28.0	19.0	-28.8
330	27.1	61.3	28.3	19.0	-29.0
335	27.6	62.1	28.7	20.0	-29.3
340	28.0	62.9	28.9	20.0	-29.6
345	28.5	63.6	29.3	20.0	-29.9
350	29.0	64.4	29.7	20.0	-30.0
355	29.4	65.1	30.1	20.0	-30.1
360	29.8	65.9	30.6	20.0	-30.2
365	30.3	66.7	31.0	20.0	-30.3
370	30.7	67.4	31.4	20.0	-30.4
375	31.2	68.2	31.8	20.0	-30.5
380	31.6	69.0	32.2	20.0	-30.6
385	32.0	69.7	32.7	20.0	-30.7
390	32.5	70.5	33.1	20.0	-30.8
395	33.0	71.2	33.5	20.0	-30.9
400	33.4	72.0	33.9	20.0	-31.0
405	33.9	72.8	34.3	20.0	-31.1
410	34.3	73.5	34.7	20.0	-31.2
415	34.8	74.3	35.2	20.0	-31.3
420	35.2	75.1	35.6	20.0	-31.4
425 430	35.7 36.1	75.8	36.0	20.0	-31.5
		76.6	36.4		-31.6
435	36.6	77.3	36.9	20.0	-31.7
440	37.0	78.1 78.9	37.3	20.0	-31.8
445 450	37.5 37.9	78.9 79.6	37.7 38.1	20.0	-31.9 -32.0
455 460	38.4 38.8	80.4 81.2	38.5 39.0	20.0	-32.1 -32.2
465	39.3	81.2 81.9	39.0	20.0	-32.2
465	39.3	82.7	39.4	20.0	-32.3
470	40.2	83.4	40.2	20.0	-32.5
480	40.2	84.2	40.2	20.0	-32.5
480	41.1	84.2 85.0	41.0	20.0	-32.6
485	41.1	85.7	41.0	20.0	-32.7
490	41.0	86.5	41.5	20.0	-32.0
500	42.5	87.3	42.3	20.0	-32.9
300	42.5	07.3	42.3	20.0	-33.0



JFD Ultrajewel Helmet Guidance Note

Regulator Setting Guidelines – 2 Divers

1	2	3	4	5	6
Bell	BPR	Make-Up		Diver	Bell BPR
Depth	Loader	Reg.	O ₂ Reg.	Supply	Loader
	b		b	(Bell)	
msw	barg	barg	barg	barg	msw
30	1.0	18.6	39.0	14.0	-15.0
35	1.4	19.3	39.0	14.0	-15.0
40	1.8	20.0	39.0	14.0	-15.0
45	2.2	20.7	39.0	14.0	-15.0
50	2.6	21.4	39.0	14.0	-15.0
55	3.0	22.1	39.0	14.0	-15.0
60	3.3	22.7	39.0	14.0	-15.0
65	3.7	23.4	39.0	14.0	-15.0
70	4.1	24.1	39.0	14.0	-15.0
75	4.5	24.8	39.0	14.0	-15.0
80	4.9	25.5	39.0	14.0	-15.0
85	5.3	26.2	39.0	14.0	-15.0
90	5.7	26.9	39.0	14.0	-15.2
95	6.1	27.6	39.0	14.0	-15.5
100	6.5	28.2	39.0 39.0	14.0	-15.8
110	7.3	28.9	39.0	14.0	-16.1 -16.3
115	7.8	30.3	39.0	14.0	-16.5
120	8.2		39.0		
120		31.0		14.0	-16.9 -17.2
130	8.7 9.1	31.7 32.4	39.0 39.0	14.0	-17.5
135	9.6	33.1	39.0	14.0	-17.8
140	10.0	33.7	39.0	14.0	-18.1
145	10.5	34.4	39.0	14.0	-18.4
150	11.0	35.1	39.0	14.0	-18.7
155	11.4	35.8	39.0	14.0	-18.9
160	11.9	36.5	39.0	14.0	-19.2
165	12.3	37.2	39.0	15.0	-19.5
170	12.7	37.9	39.0	15.0	-19.8
175	13.2	38.6	39.0	15.0	-20.1
180	13.6	39.2	39.0	15.0	-20.4
185	14.1	39.9	39.0	15.0	-20.7
190	14.6	40.6	39.0	15.0	-21.0
195	15.0	41.3	39.0	15.0	-21.3
200	15.5	42.0	39.0	16.0	-21.5
205	15.9	42.3	39.0	16.0	-21.8
210	16.3	43.0	39.0	16.0	-22.1
215	16.8	43.8	39.0	16.0	-22.4
220	17.2	44.6	39.0	16.0	-22.7
225	17.7	45.3	39.0	16.0	-23.0
230	18.1	46.1	39.0	16.0	-23.3
235	18.6	46.8	39.0	17.0	-23.6
240	19.0	47.6	39.0	17.0	-23.8
245	19.5	48.4	39.0	17.0	-24.1
250	20.0	49.1	39.0	17.0	-24.4

1	2	3	4	- 5	- 6
				Diver	
Bell Depth	BPR Loader	Make-Up Reg.	O ₂ Reg.	Supply (Bell)	Bell BPR Loader
msw	barg	barq	barg	barg	msw
255	20.4	49.9	39.0	17.0	-24.7
260	20.4	50.7	39.0	17.0	-24.7
265	21.3	51.4	39.0	18.0	-25.0
270	21.7	52.2	39.0	18.0	-25.6
275	22.2	52.9	39.0	18.0	-25.9
280	22.2	53.7	39.0	18.0	-26.2
285	23.1	54.5	39.0	18.0	-26.4
290	23.5	55.2	39.0	18.0	-26.7
295	24.0	56.0	39.0	18.0	-27.0
300	24.5	56.8	39.0	19.0	-27.3
305	24.9	57.5	39.1	19.0	-27.6
310	25.3	58.3	39.3	19.0	-27.9
315	25.7	59.0	39.5	19.0	-28.2
320	26.2	59.8	39.7	19.0	-28.5
325	26.7	60.6	40.0	19.0	-28.8
330	27.1	61.3	40.2	19.0	-29.0
335	27.6	62.1	40.4	20.0	-29.3
340	28.0	62.9	40.6	20.0	-29.6
345	28.5	63.6	40.8	20.0	-29.9
350	29.0	64.4	41.0	20.0	-30.0
355	29.4	65.1	41.2	20.0	-30.1
360	29.8	65.9	41.4	20.0	-30.2
365	30.3	66.7	41.6	20.0	-30.3
370	30.7	67.4	41.8	20.0	-30.4
375	31.2	68.2	42.0	20.0	-30.5
380	31.6	69.0	42.3	20.0	-30.6
385	32.0	69.7	42.5	20.0	-30.7
390	32.5	70.5	42.7	20.0	-30.8
395	33.0	71.2	42.9	20.0	-30.9
400	33.4	72.0	43.1	20.0	-31.0
405	33.9	72.8	43.3	20.0	-31.1
410	34.3	73.5	43.5	20.0	-31.2
415	34.8	74.3	43.7	20.0	-31.3
420	35.2	75.1	44.0	20.0	-31.4
425	35.7	75.8	44.4	20.0	-31.5
430	36.1	76.6	44.7	20.0	-31.6
435	36.6	77.3	45.1	20.0	-31.7
440	37.0	78.1	45.5	20.0	-31.8
445	37.5	78.9	45.9	20.0	-31.9
450	37.9	79.6	46.2	20.0	-32.0
455	38.4	80.4	46.6	20.0	-32.1
460	38.8	81.2	47.0	20.0	-32.2
465	39.3	81.9	47.4	20.0	-32.3
470	39.7	82.7	47.7	20.0	-32.4
475	40.2	83.4	48.1	20.0	-32.5
480	40.7	84.2	48.5	20.0	-32.6
485	41.1	85.0	48.9	20.0	-32.7
490	41.6	85.7	49.2	20.0	-32.8
495	42.0	86.5	49.6	20.0	-32.9
500	42.5	87.3	50.0	20.0	-33.0

Contact:

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