

TRACK 400 - ISO 11414

BUTT FUSION PARAMETERS FOR PE100 PIPES AND FITTINGS - SDR 7.4/SDR 9/SDR 11/SDR 13.6

PHASE	DN	160				180				200				225				250				280				315				355				400				
	SDR	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	
	WALL THICKNESS	21.9	17.9	14.6	11.8	24.6	20.1	16.4	13.3	27.4	22.4	18.2	14.7	17.1	25.1	20.5	16.6	34.2	27.9	22.7	18.4	38.3	31.2	25.4	20.6	43.1	35	28.6	23.3	48.5	39.5	32.3	26.1	54.7	44.5	36.4	29.4	
	PN	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	
	TRIMMING PRESSURE	DRAG PRESSURE + the necessary pressure to produce the trimming operation																																				
	HEATING PLATE TEMPERARURE	210°C ±10°C																225°C ±10°C																				
①	HEAT SOAK PRESSURE (bar) Total pistons area 12.82 cm2	ADD DRAG PRESSURE																																				
		13.5	11	9.5	7.5	17	14	12	10	21	17.5	14.5	12	26.5	22	18.5	15.5	32.5	27.5	23	19	41	34	28.5	23.5	51.5	43	36	30	65.5	55	46	38	83.5	70	58.5	48	
	HEATING TIME	AS BEAD B1 IS FORMED																																				
	BEAD B1 (bead width)	From 1 to 2 mm								From 2 to 3 mm																From 3 to 4 mm												
②	HEAT SOAK PRESSURE	IMMOBILIZATION (RELEASE THE PHASE ① HEAT SOAK PRESSURE MOVING DOWNWARDS THE DRAIN VALVE LEVER)																																				
		ATTENTION !: REDUCE THE PRESSURE TO A MINIMUM NECESSARY TO KEEP THE CONTACT BETWEEN HEATING PLATE AND PIPE ENDS; THEN MOVE UPWARDS THE DRAIN VALVE LEVER																																				
	HEAT SOAK TIME (min:s ±10s)	01:50				02:00				02:10				02:23				02:35				02:50				03:08				03:28				03:50				
③	HEATING PLATE WITHDRAWAL (s)	4.5				5				5.5				6				6.5				7																
④	CHANGEOVER TIME (s)	4.5				5				5.5				6																								
⑤	FUSION PRESSURE (bar)	ADD DRAG PRESSURE																																				
		13.5	11	9.5	7.5	17	14	12	10	21	17.5	14.5	12	26.5	22	18.5	15.5	32.5	27.5	23	19	41	34	28.5	23.5	51.5	43	36	30	65.5	55	46	38	83.5	70	58.5	48	
	FUSION TIME (min)	Minimum 10																																				
⑥	COOLING TIME (min:s)	20:00	20:00	20:00	17:42	20:00	20:00	20:00	19:57	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00	20:00

BUTT FUSION PARAMETERS FOR PE100 PIPES AND FITTINGS - SDR 17 / SDR 21 /SDR 26 / SDR 33

PHASE	DN	160				180				200				225				250				280				315				355				400			
	SDR	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33
	WALL THICKNESS	9.5	7.7	6.2	4.9	10.7	8.6	6.9	5.5	11.9	9.6	7.7	6.2	13.4	10.8	8.6	6.9	14.8	11.9	9.6	7.7	16.6	13.4	10.7	8.6	18.7	15	12.1	9.7	21.1	16.9	13.6	10.9	23.7	19.1	15.3	12.3
	PN	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4
	TRIMMING PRESSURE	DRAG PRESSURE + the necessary pressure to produce the trimming operation																																			
	HEATING PLATE TEMPERARURE	210°C ±10°C																225°C ±10°C																			
①	HEAT SOAK PRESSURE (bar) Total pistons area 12.82 cm2	ADD DRAG PRESSURE																																			
		6.5	5	4	3.5	8	6.5	5.5	4	10	8	6.5	5.5	12.5	10	8	6.5	15.5	12.5	10	8	19.5	16	12.5	10.5	24.5	20	16	13	31	25	20.5	16.5	39.5	32	26	21
	HEATING TIME	AS BEAD B1 IS FORMED																																			
	BEAD B1 (bead width)	From 1 to 2 mm								From 2 to 3 mm																From 3 to 4 mm											
②	HEAT SOAK PRESSURE	IMMOBILIZATION (RELEASE THE PHASE ① HEAT SOAK PRESSURE MOVING DOWNWARDS THE DRAIN VALVE LEVER)																																			
		ATTENTION !: REDUCE THE PRESSURE TO A MINIMUM NECESSARY TO KEEP THE CONTACT BETWEEN HEATING PLATE AND PIPE ENDS; THEN MOVE UPWARDS THE DRAIN VALVE LEVER																																			
	HEAT SOAK TIME (min:s ±10s)	01:50				02:00				02:10				02:23				02:35				02:50				03:08				03:28				03:50			
③	HEATING PLATE WITHDRAWAL (s)	4.5				5				5.5				6				6.5				7															
④	CHANGEOVER TIME (s)	4.5				5				5.5				6																							
⑤	FUSION PRESSURE (bar)	ADD DRAG PRESSURE																																			
		6.5	5	4	3.5	8	6.5	5.5	4	10	8	6.5	5.5	12.5	10	8	6.5	15.5	12.5	10	8	19.5	16	12.5	10.5	24.5	20	16	13	31	25	20.5	16.5	39.5	32	26	21
	FUSION TIME (min)	Minimum 10																																			
⑥	COOLING TIME (min:s)	14:15	11:33	09:18	07:21	16:03	12:54	10:21	08:15	17:51	14:24	11:33	09:18	20:00	16:12	12:54	10:21	20:00	17:51	14:24	11:33	20:00	20:00	16:03	12:54	20:00	20:00	18:09	14:33	20:00	20:00	20:00	16:21	20:00	20:00	20:00	18:27

TRACK 400 - DVS 2207-1

BUTT FUSION PARAMETERS FOR PE100 PIPES AND FITTINGS - SDR 7.4/SDR 9/SDR 11/SDR 13.6

PHASE	DN	160				180				200				225				250				280				315				355				400			
	SDR	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6	7.4	9	11	13.6
	WALL THICKNESS	21.9	17.9	14.6	11.8	24.6	20.1	16.4	13.3	27.4	22.4	18.2	14.7	30.8	25.1	20.5	16.6	34.2	27.9	22.7	18.4	38.3	31.2	25.4	20.6	43.1	35	28.6	23.3	48.5	39.5	32.2	26.1	54.7	44.5	36.4	29.4
	PN	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5	25	20	16	12.5
	TRIMMING PRESSURE	DRAG PRESSURE + the necessary pressure to produce the trimming operation																																			
	HEATING PLATE TEMPERARURE	210°C ±10°C																																			
①	HEAT SOAK PRESSURE (bar) Total pistons area 12.82 cm2	ADD DRAG PRESSURE																																			
	HEATING TIME	AS BEAD IS FORMED																																			
	BEAD HEIGHT (mm)	2.5	2	2	1.5	2.5	2.5	2	2	3	2.5	2	2	3	2.5	2.5	2	3	3	2.5	2	3.5	3	2.5	2.5	3.5	3	3	2.5	3.5	3.5	3	3	4	3.5	3	3
②	HEAT SOAK PRESSURE	IMMOBILIZATION (RELEASE THE PHASE ① HEAT SOAK PRESSURE MOVING DOWNWARDS THE DRAIN VALVE LEVER)																																			
		ATTENTION !: REDUCE THE PRESSURE TO A MINIMUM NECESSARY TO KEEP THE CONTACT BETWEEN HEATING PLATE AND PIPE ENDS; THEN MOVE UPWARDS THE DRAIN VALVE LEVER																																			
	HEAT SOAK TIME (min:s ±10s)	03:39	02:59	02:26	01:58	04:06	03:21	02:44	02:13	04:34	03:44	03:02	02:27	05:08	04:11	03:25	02:46	05:42	04:39	03:47	03:04	06:23	05:12	04:14	03:26	07:11	05:50	04:46	03:53	08:05	06:35	05:22	04:21	09:07	07:25	06:04	04:54
③	HEATING PLATE WITHDRAWAL (s)	11	10	9	8	11	10	9	9	12	10	10	9	14	12	10	9	15	15	11	10	16	13	12	10	18	16	12	11	20	17	14	12	21	18	16	13
④	CHANGEOVER TIME (s)	12	11	9	8	13	11	9	9	14	12	11	9	16	14	11	10	17	18	12	11	19	15	13	11	22	19	14	13	24	20	16	14	26	21	18	15
⑤	FUSION PRESSURE (bar)	ADD DRAG PRESSURE																																			
	FUSION TIME (min:s)	27:19	22:45	18:58	15:46	30:24	25:15	21:02	17:29	33:39	27:53	23:05	19:05	37:40	30:58	25:43	21:15	41:41	34:15	28:14	23:19	46:30	38:09	31:19	25:50	52:02	42:38	35:04	28:55	58:16	47:53	39:20	32:07	64:42	53:39	44:17	36:01

BUTT FUSION PARAMETERS FOR PE100 PIPES AND FITTINGS - SDR 17 / SDR 21 / SDR 26 / SDR 33

PHASE	DN	160				180				200				225				250				280				315				355				400			
	SDR	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33	17	21	26	33
	WALL THICKNESS	9.5	7.7	6.2	4.9	10.7	8.6	6.9	5.5	11.9	9.6	7.7	6.2	13.4	10.8	8.6	6.9	14.8	11.9	9.6	7.7	16.6	13.4	10.7	8.6	18.7	15	12.1	9.7	21.1	16.9	13.6	10.9	23.7	19.1	15.3	12.3
	PN	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4	10	8	6.3	4
	TRIMMING PRESSURE	DRAG PRESSURE + the necessary pressure to produce the trimming operation																																			
	HEATING PLATE TEMPERARURE	210°C ±10°C																																			
①	HEAT SOAK PRESSURE (bar) Total pistons area 12.82 cm2	ADD DRAG PRESSURE																																			
	HEATING TIME	AS BEAD IS FORMED																																			
	BEAD HEIGHT (mm)	1.5	1.5	1	1	1.5	1.5	1	1	1.5	1.5	1.5	1	2	1.5	1.5	1	2	1.5	1.5	1.5	2	2	1.5	1.5	2	2	2	1.5	2.5	2	2	1.5	2.5	2.5	2	2
②	HEAT SOAK PRESSURE	IMMOBILIZATION (RELEASE THE PHASE ① HEAT SOAK PRESSURE MOVING DOWNWARDS THE DRAIN VALVE LEVER)																																			
		ATTENTION !: REDUCE THE PRESSURE TO A MINIMUM NECESSARY TO KEEP THE CONTACT BETWEEN HEATING PLATE AND PIPE ENDS; THEN MOVE UPWARDS THE DRAIN VALVE LEVER																																			
	HEAT SOAK TIME (min:s ±10s)	01:35	01:17	01:02	00:49	01:47	01:26	01:09	00:55	01:59	01:36	01:17	01:02	02:14	01:48	01:26	01:09	02:28	01:59	01:36	01:17	02:46	02:14	01:47	01:26	03:07	02:30	02:01	01:37	03:31	02:49	02:16	01:49	03:57	03:11	02:33	02:03
③	HEATING PLATE WITHDRAWAL (s)	7	6	6	5	7	7	6	5	8	7	6	6	8	8	7	6	9	8	7	6	9	8	7	6	10	9	8	7	11	9	8	7	11	10	9	8
④	CHANGEOVER TIME (s)	7	6	6	5	7	7	6	5	8	7	6	6	9	8	7	6	9	8	7	6	10	9	7	6	11	9	8	7	12	10	9	7	13	11	10	8
⑤	FUSION PRESSURE (bar)	ADD DRAG PRESSURE																																			
	FUSION TIME (min:s)	13:00	10:50	08:43	06:38	14:26	11:55	09:50	07:36	15:53	13:07	10:50	08:43	17:36	14:34	11:55	12:00	19:12	15:53	13:07	10:50	21:15	17:36	14:26	11:55	23:39	19:26	16:07	13:14	26:24	21:36	17:50	14:41	29:22	24:07	19:46	16:21

TRACK 400 - DVS 2207-11

BUTT FUSION PARAMETERS FOR POLYPROPYLENE (PP) PIPES AND FITTINGS - SDR 7.4/SDR 11/SDR 17.6

PHASE	DN	160			180			200			225			250			280			315			355			400				
	SDR	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6	7.4	11	17.6		
	WALL THICKNESS	21.9	14.6	9.1	16.4	10.2		18.2	11.4		20.5	12.8		22.7	14.2		25.4	15.9		28.6	17.9		32.2	20.1		36.3	22.7			
	PN	16	10	6	16	10	6	16	10	6	16	10	6	16	10	6	16	10	6	16	10	6	16	10	6	16	10	6	16	10
TRIMMING PRESSURE	DRAG PRESSURE + the necessary pressure to produce the trimming operation																													
HEATING PLATE TEMPERATURE	210°C ±10°C																													
①	HEAT SOAK PRESSURE (bar) Total pistons area 12.82 cm ²	ADD DRAG PRESSURE																												
		7.5	5	3.5		6.5	4		8	5		10.5	6.5		12.5	8		16	10.5		20	13		25.5	16.5		32.5	21	7.5	
	HEATING TIME	AS BEAD IS FORMED																												
BEAD HEIGHT (mm)	1.5	1	1		1	1		1	1		1.5	1		1.5	1		1.5	1		2	1		2	1.5		2	1.5	1.5		
②	HEAT SOAK PRESSURE	IMMOBILIZATION (RELEASE THE PHASE ① HEAT SOAK PRESSURE MOVING DOWNWARDS THE DRAIN VALVE LEVER)																												
		ATTENTION !: REDUCE THE PRESSURE TO A MINIMUM NECESSARY TO KEEP THE CONTACT BETWEEN HEATING PLATE AND PIPE ENDS; THEN MOVE UPWARDS THE DRAIN VALVE LEVER																												
HEAT SOAK TIME (min:s ±10s)	05:59	04:37	03:24		04:58	03:40		05:20	03:57		05:45	04:15		06:07	04:32		06:34	04:52		07:00	05:17		07:28	05:41		07:60	06:07	05:32		
③ HEATING PLATE WITHDRAWAL (s)	10	8	6		8	6		9	7		9	7		10	8		11	8		11	8		12	9		14	10	9		
④ CHANGEOVER TIME (s)	19	12	8		16	8		16	11		18	11		18	12		21	13		23	14		25	18		32	18	17		
⑤	FUSION PRESSURE (bar)	ADD DRAG PRESSURE																												
		7.5	5	3.5		6.5	4		8	5		10.5	6.5		12.5	8		16	10.5		20	13		25.5	16.5		32.5	21	7.5	
FUSION TIME (min:s)	34:09	23:43	15:22		26:17	17:07		28:51	19:02		32:09	21:09		35:17	23:09		39:09	25:34		43:33	28:26		48:27	31:34		54:03	35:17	30:17		

BUTT FUSION PARAMETERS FOR POLYPROPYLENE (PP) PIPES AND FITTINGS - SDR 26 / SDR 33 / SDR 41

PHASE	DN	160			180			200			225			250			280			315			355			400							
	SDR	26	33	41	26	33	41	26	33	41	26	33	41	26	33	41	26	33	41	26	33	41	26	33	41	26	33	41					
	WALL THICKNESS	6.2	4.9	4	6.9	5.5	4.4	7.7	6.2	4.9	3	8.6	6.9	5.5	9.6	7.7	6.2	3.5	10.7	8.6	6.9	12.1	9.7	7.7	5	13.6	10.9	8.7	6	15.3	12.3	9.8	6
	PN	4	3.2	2.5	4	3.2	2.5	4	3.2	2.5		4	3.2	2.5	4	3.2	2.5		4	3.2	2.5	4	3.2	2.5		4	3.2	2.5		4	3.2	2.5	
TRIMMING PRESSURE	DRAG PRESSURE + the necessary pressure to produce the trimming operation																																
HEATING PLATE TEMPERATURE	210°C ±10°C																																
①	HEAT SOAK PRESSURE (bar) Total pistons area 12.82 cm ²	ADD DRAG PRESSURE																															
		2.5	2	1.5	3	2.5	2	3.5	3	2.5	1.5	4.5	3.5	3	5.5	4.5	3.5	2	7	5.5	4.5	9	7	6	4	11.5	9	7.5	5	14.5	11.5	9.5	6
	HEATING TIME	AS BEAD IS FORMED																															
BEAD HEIGHT (mm)	0.5	0.5	0.5	0.5	0.5	0.5	1	0.5	0.5	0.5	1	0.5	0.5	1	1	0.5	0.5	1	1	0.5	1	1	1	0.5	1	1	1	0.5	1	1	1	0.5	
②	HEAT SOAK PRESSURE	IMMOBILIZATION (RELEASE THE PHASE ① HEAT SOAK PRESSURE MOVING DOWNWARDS THE DRAIN VALVE LEVER)																															
		ATTENTION !: REDUCE THE PRESSURE TO A MINIMUM NECESSARY TO KEEP THE CONTACT BETWEEN HEATING PLATE AND PIPE ENDS; THEN MOVE UPWARDS THE DRAIN VALVE LEVER																															
HEAT SOAK TIME (min:s ±10s)	02:42	02:21	02:00	02:53	02:31	02:12	03:05	02:42	02:21	01:30	03:17	02:53	02:31	03:31	03:05	02:42	01:45	03:47	03:17	02:53	04:06	03:33	03:05	02:23	04:24	03:50	03:19	02:39	04:45	04:09	03:34	02:39	
③ HEATING PLATE WITHDRAWAL (s)	6	5	5	6	5	5	6	6	5	5	6	6	5	6	6	5	5	6	6	6	7	6	6	5	7	7	6	6	8	7	6	5	
④ CHANGEOVER TIME (s)	7	6	6	7	6	6	7	7	6	6	7	7	6	8	7	6	6	8	8	7	11	9	7	6	12	10	8	7	13	11	8	6	
⑤	FUSION PRESSURE (bar)	ADD DRAG PRESSURE																															
		2.5	2	1.5	3	2.5	2	3.5	3	2.5	1.5	4.5	3.5	3	5.5	4.5	3.5	2	7	5.5	4.5	9	7	6	4	11.5	9	7.5	5	14.5	11.5	9.5	6
FUSION TIME (min:s)	10:05	06:58	06:00	11:46	08:24	06:00	13:07	10:05	06:58	06:00	14:34	11:46	08:24	16:10	13:07	10:05	06:00	17:55	14:34	11:46	20:09	16:19	13:07	07:12	22:17	18:14	14:43	09:36	24:43	20:26	16:26	09:36	