

85EHD Tough Bird®

Straight Bore Nozzle (SBN-5) with Plug Performance*												METRIC			
bar @ Nozzle	NOZZLE SIZE												(Stream Height: 4.3m)		
	8.7mm (11/32")			9.5mm (3/8")			10.3mm (13/32")			11.1mm (7/16")			11.9mm (15/32")		
	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)
1.7	18.6	1.08	3.88	18.9	1.28	4.61	19.5	1.48	5.31	20.1	1.68	6.06	20.1	1.91	6.88
2.0	19.3	1.16	4.19	19.6	1.38	4.97	20.5	1.59	5.73	20.8	1.82	6.53	21.6	2.06	7.41
2.5	20.6	1.30	4.69	21.0	1.55	5.57	22.2	1.78	6.42	22.8	2.03	7.32	23.7	2.31	8.30
3.0	21.5	1.43	5.16	22.1	1.70	6.11	23.3	1.96	7.05	23.9	2.23	8.03	24.8	2.53	9.11
3.5	22.3	1.55	5.58	22.9	1.84	6.61	24.2	2.12	7.62	24.8	2.41	8.69	25.7	2.74	9.86
4.0	23.2	1.62	5.83	23.8	1.93	6.95	25.1	2.24	8.06	25.8	2.58	9.27	26.6	2.94	10.57
4.5	24.1	1.70	6.12	24.7	2.02	7.28	25.6	2.36	8.51	26.5	2.74	9.85	27.4	3.15	11.35
5.0	24.8	1.81	6.51	25.4	2.14	7.70	26.4	2.50	8.99	27.3	2.90	10.43	28.0	3.30	11.89
5.5	25.3	1.91	6.89	26.2	2.25	8.09	27.1	2.63	9.47	28.0	3.05	10.97	28.6	3.47	12.49
6.0	26.0	2.02	7.26	26.8	2.37	8.52	27.7	2.76	9.94	28.6	3.19	11.49	29.4	3.63	13.07
6.5	26.5	2.13	7.66	27.4	2.48	8.93	28.3	2.89	10.40	29.2	3.33	11.98	29.8	3.77	13.57
6.9	26.8	2.15	7.72	27.7	2.57	9.24	28.7	2.99	10.77	29.6	3.44	12.38	30.2	3.88	13.97

	NOZZLE SIZE														(Stream Height: 4.3m)
	12.7mm (1/2")			13.5mm (17/32")			14.3mm (9/16")			15.9mm (5/8")			17.5mm (11/16")		
bar @ Nozzle	Rad. (m)	Flow l/s	Flow m³/h	Rad. (m)	Flow l/s	Flow m³/h	Rad. (m)	Flow l/s	Flow m³/h	Rad. (m)	Flow l/s	Flow m³/h	Rad. (m)	Flow l/s	Flow m³/h
1.7	20.1	2.13	7.68	20.1	2.34	8.43	20.1	2.67	9.61	20.1	3.25	11.70	20.1	3.91	14.06
2.0	21.8	2.30	8.27	21.8	2.53	9.10	21.8	2.87	10.35	21.8	3.50	12.60	21.8	4.22	15.18
2.5	24.4	2.57	9.26	24.4	2.83	10.19	24.6	3.22	11.60	24.6	3.92	14.12	24.6	4.74	17.06
3.0	25.7	2.83	10.17	26.4	3.11	11.18	27.1	3.54	12.73	27.5	4.31	15.50	27.5	5.22	18.78
3.5	26.6	3.05	11.00	27.5	3.36	12.10	28.7	3.83	13.77	29.1	4.66	16.78	29.7	5.65	20.34
4.0	27.5	3.27	11.79	28.4	3.63	13.06	29.4	4.07	14.66	30.5	4.98	17.93	31.2	6.06	21.82
4.5	28.4	3.49	12.58	29.3	3.87	13.92	30.2	4.39	15.79	31.1	5.33	19.20	32.3	6.45	23.21
5.0	29.0	3.69	13.29	30.0	4.08	14.68	30.9	4.64	16.70	31.8	5.64	20.30	33.1	6.81	24.51
5.5	29.5	3.88	13.96	30.7	4.29	15.44	31.7	4.88	17.57	32.6	5.93	21.33	33.5	7.16	25.77
6.0	30.3	4.05	14.58	31.3	4.49	16.15	32.1	5.10	18.37	33.2	6.20	22.30	34.3	7.49	26.96
6.5	30.7	4.22	15.17	32.0	4.67	16.83	32.8	5.30	19.07	33.8	6.45	23.21	35.0	7.81	28.11
6.9	31.1	4.35	15.65	32.3	4.82	17.35	33.2	5.50	19.81	34.1	6.64	23.89	35.4	8.06	29.00

Straight Bore Nozzle (SBN-5) and Spreader (LAN-1-20) Performance*										US MEASUREMENTS
psi @ Nozzle	NOZZLE SIZE (Stream Height: 14 ft.)									
	11/32" x 7/32-20"			3/8" x 7/32-20"			13/32" x 7/32-20"			
	Rad. (ft.)	Flow (gpm)	Flow (m³/h)	Rad. (ft.)	Flow (gpm)	Flow (m³/h)	Rad. (ft.)	Flow (gpm)	Flow (m³/h)	
25	61	23.30	62	26.50	64	29.60	66	32.90	66	36.40
30	64	25.60	65	29.10	68	32.40	69	36.10	72	40.00
35	67	27.70	68	31.40	72	35.10	74	39.00	77	43.30
40	69	29.60	71	33.60	75	37.60	77	41.80	80	46.30
45	71	31.50	73	35.70	77	39.90	79	44.40	82	49.20
50	73	33.20	75	37.70	79	42.10	81	46.80	84	51.90
55	75	34.90	77	39.70	81	44.30	83	49.10	86	54.70
60	77	36.50	79	41.40	83	46.60	86	51.50	88	57.20
65	79	38.00	81	43.20	84	48.60	87	53.80	90	59.80
70	81	40.10	83	44.90	86	50.40	89	55.90	91	62.10
75	82	41.00	84	46.70	87	52.40	90	57.90	93	64.30
80	83	42.60	86	48.30	89	54.30	92	60.00	94	66.70
85	85	43.80	87	49.80	90	56.00	93	62.00	96	68.80
90	86	45.70	89	51.40	92	57.90	95	63.90	97	70.70
95	87	46.60	90	53.00	93	59.60	96	65.80	98	72.80
100	88	47.90	91	54.50	94	61.20	97	67.50	99	74.80

Straight Bore Nozzle (SBN-5) and Spreader (LAN-1-20) Performance*											METRIC				
bar @ Nozzle	NOZZLE SIZE												(Stream Height: 4.3m)		
	8.7mm x 5.56mm (11/32" x 7/32") 20°			9.5mm x 5.56mm (3/8" x 7/32") 20°			10.3mm x 5.56mm (13/32" x 7/32") 20°			11.1mm x 5.56mm (7/16" x 7/32") 20°			11.9mm x 5.56mm (15/32" x 7/32") 20°		
	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)	Rad. (m)	Flow (l/s)	Flow (m³/h)
1.7	18.6	1.47	5.29	18.9	1.67	6.02	19.5	1.87	6.72	20.1	2.08	7.47	20.1	2.30	8.27
2.0	19.3	1.59	5.71	19.6	1.80	6.49	20.5	2.01	7.23	20.8	2.24	8.05	21.6	2.48	8.92
2.5	20.6	1.78	6.40	21.0	2.02	7.25	22.2	2.25	8.11	22.8	2.50	9.01	23.7	2.78	10.00
3.0	21.5	1.95	7.02	22.1	2.21	7.96	23.3	2.47	8.90	23.9	2.75	9.90	24.8	3.05	10.97
3.5	22.3	2.11	7.60	22.9	2.40	8.63	24.2	2.68	9.63	24.8	2.97	10.71	25.7	3.30	11.88
4.0	23.2	2.26	8.14	23.8	2.57	9.25	25.1	2.88	10.37	25.8	3.19	11.48	26.6	3.54	12.76
4.5	24.1	2.40	8.65	24.7	2.73	9.83	25.6	3.07	11.06	26.5	3.40	12.24	27.4	3.78	13.60
5.0	24.8	2.56	9.21	25.4	2.89	10.40	25.5	3.24	11.67	27.3	3.59	12.92	28.0	3.99	14.35
5.5	25.3	2.68	9.65	26.2	3.04	10.95	27.0	3.42	12.31	28.0	3.78	13.60	28.6	4.20	15.12
6.0	26.0	2.81	10.12	26.8	3.18	11.45	27.7	3.58	12.89	28.6	3.96	14.25	29.4	4.39	15.79
6.5	26.5	2.93	10.55	27.4	3.33	11.98	28.3	3.74	13.48	29.2	4.13	14.88	29.8	4.57	16.46
6.9	26.8	3.02	10.88	27.7	3.44	12.38	28.7	3.86	13.90	29.6	4.26	15.33	30.2	4.72	16.99

* Nozzles must be purchased separately. See chart on previous page.

Part List

Part	Category	Description	Item Number
Nozzle	SBN-1	NOZ,SBN-1, 5/64, 14/20J	10578005
Nozzle	SBN-1	NOZ,SBN-1, 1/16, 14/20J	10578004
Nozzle	SBN-1	NOZ,SBN-1, 3/32, 14/20J	10578006
Nozzle	SBN-1	NOZ,SBN-1, 7/64, 14/20J	10578007
Nozzle	SBN-1	NOZ,SBN-1, 1/8, 14/20J	10578008
Nozzle	SBN-1	NOZ,SBN-1, 9/64, 14/20J	10578009
Nozzle	SBN-1	NOZ,SBN-1, 5/32, 14/20J	10578010
Nozzle	SBN-1V	NOZ,SBN-1V, 1/8, 14/20J	10616008
Nozzle	SBN-1V	NOZ,SBN-1V, 9/64, 14/20J	10616009
Nozzle	SBN-1V	NOZ,SBN-1V, 5/32, 14/20J	10616010
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584212
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584207
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584208
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584209
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584210
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584211
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584213
Nozzle	SBN-3	NOZ,SBN-3,RNG - 30/40	10584214
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 7/64, 30/	10613107
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 1/8, 30/4	10613108
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 9/64, 30/	10613109
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 5/32, 30/	10613110
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 11/64, 30	10613111
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 3/16, 30/	10613112
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 13/64, 30	10613113
Nozzle	SBN-3V	NOZ,SBN-3V,RNG, 7/32, 30/	10613114
Nozzle	SBN-4	NOZ,SBN-4,RNG 7/32 - 65/70	10038214
Nozzle	SBN-4	NOZ,SBN-4,RNG 1/4 - 65/70	10038216
Nozzle	SBN-4	NOZ,SBN-4,RNG 9/32 - 65/70	10038218
Nozzle	SBN-4	NOZ,SBN-4,RNG 5/16 - 65/70	10038220
Nozzle	SBN-4	NOZ,SBN-4,RNG 11/32 - 65/70	10038222
Nozzle	SBN-4	NOZ,SBN-4,RNG 3/8 - 65/70	10038224
Nozzle	SBN-4	NOZ,SBN-4,RNG 13/32 - 65/70	10038226
Nozzle	SBN-5	NOZ,SBN-5,RNG,11/32 - 80/	10304322
Nozzle	SBN-5	NOZ,SBN-5,RNG,3/8 - 80/85	10304324
Nozzle	SBN-5	NOZ,SBN-5,RNG,13/32 - 80/	10304326
Nozzle	SBN-5	NOZ,SBN-5,RNG,7/16 - 80/8	10304328
Nozzle	SBN-5	NOZ,SBN-5,RNG,15/32 - 80/	10304330
Nozzle	SBN-5	NOZ,SBN-5,RNG,1/2 - 80/85	10304332
Nozzle	SBN-5	NOZ,SBN-5,RNG,17/32 - 80/	10304334
Nozzle	SBN-5	NOZ,SBN-5,RNG,9/16 - 80/8	10304336
Nozzle	SBN-5	NOZ,SBN-5,RNG,5/8 - 80/85	10304340
Nozzle	SBN-5	NOZ,SBN-5,RNG,11/16 - 80/	10304344
Nozzle	LAN-1-7	NOZ,LAN-1,7DEG 3/32-20A	10022506
Nozzle	LAN-1-7	NOZ,LAN-1,7DEG 7/64-20A	10022507
Nozzle	LAN-1-7	NOZ,LAN-1,7DEG 1/8-20A	10022508
Nozzle	LAN-1-7	NOZ,LAN-1,7DEG 9/64-20A	10022509
Nozzle	LAN-1-7	NOZ,LAN-1,7DEG 5/32-20A	10022510
Nozzle	LAN-1-20	NOZ,LAN-1,20DEG 3/32-20A	10022606
Nozzle	LAN-1-20	NOZZLE LAN-1, 7/64" 20 DEG	10022607
Nozzle	LAN-1-20	NOZ,LAN-1,20DEG 1/8-20A 01	10022608
Nozzle	LAN-1-20	NOZ,LAN-1,20DEG 9/64-20A	10022609
Nozzle	LAN-1-20	NOZ,LAN-1,20DEG 5/32-20A 01	10022610
Nozzle	ADJN-4	NOZ,ADJN-4 1/4 - 65D	10038516

Part	Category	Description	Item Number
Nozzle	ADJN-5	NOZZLE ADJ-5/32 - 35 IMPACT	10032810
Nozzle	ADJN-5	NOZZLE,ADJ-11/64-35 IMPACT	10032811
Nozzle	ADJN-5	NOZZLE,ADJ-3/16-35 IMPACT	10032812
Nozzle	DAN-3	DEFLECTOR ASY-5/32 (DAN)	10033210
Nozzle	DAN-3	DEFLECTOR ASY 3/16 (DAN)	10033212
Nozzle	KHN-3	NOZ,KHN-3, 5/32 - 30	10635310
Nozzle	KHN-3	NOZ,KHN-3, 11/64 -30	10635311
Nozzle	PLUG	PLUG-1,1/2" - 30/46	100255
Nozzle	PLUG	PLUG - 4,1" - 70	100417
Nozzle	PLUG	BUSHING,SPREADER -1/2"	100418
Nozzle	QF-SBN	NOZ,QF-SBN-3,5/32 30	10788110
Nozzle	QF-SBN	NOZ,QF-SBN-3,11/64 - 30	10788111
Nozzle	QF-SBN	NOZ,QF-SBN-3,3/16 - 30	10788112
Part	Bearing Assemblies	BRG ASSY 14DH	177446
Part	Bearing Assemblies	MNPT BEARING ASSY 70CH	177512
Part	Bearing Assemblies	FNPT BEARING ASSY 70H	177514
Part	Bearing Nipples	NIPPLE, BEARING, 35TNT	177504
Part	Bearing Nipples	NIPPLE, BEARING, 85HD	177506
Part	Bearing Nipples	NIPPLE, BRG-14, 20, 29 Series	177516
Part	Bearing Nipples	NIPPLE,BRG 65PJ, 70CH	177518
Part	Bearing Sleeves	BEARING SLEEVE 35	177466
Part	Bearing Sleeves	SLEEVE, BRG, 1/2" H STYLE	177510
Part	Bearing Washers	BEARING WASHER ASSY 70H	177426
Part	Bearing Washers	BRG WSHR 20J L20H	177445
Part	Bearing Washers	BRG WSHR L36H 14070H	177447
Part	Bearing Washers	BRG WSHR L36AH 30PWH 30FH	177448
Part	Bearing Washers	BEARING WASHER ASSEMBLY 35	177473
Part	Bearing Washers	Bearing WASHER ASSY 85 KIT	177474
Part	Bearing Washers	Bearing Washer Assy 65 kit	177475
Part	Bearing Washers	BRG ASSY 14VH L20VH	177535
Part	Bearing Washers	BRG WSHR 14VH L20VH M20VHPM	177536
Part	Bearing Washers	BRG WSHR 30H 30WH	180703
Part	Bearing Washers	BEARING ASSY 30H 30WH	180712
Part	Bearing Washers	BEARING ASSY 30H BOG WASHER	180712BOG
Part	Fulcrum Kits	FULCRUM KIT 20J	177415
Part	Impact Arm Assemblies	ARM/SPRING ASSY- 35 PJ	177469
Part	Impact Arm Assemblies	Arm-Spring assy for 85EHD	177470
Part	Impact Arm Assemblies	Arm-Spring assy for 65PJ	177508
Part	Impact Arm Assemblies	ARM/WEDGE/SPRING - 14VH	177521
Part	Impact Arm Assemblies	ARM, BRASS and SPRING - 30H	177529
Part	Impact Arm Assemblies	ARM and SPRING - 14070	177531
Part	Impact Arm Assemblies	Arm-Spring assy 70CH	177532
Part	Impact Arm Assemblies	ARM SPRING ASSY 80EHD	177533
Part	Trip Mechanisms	TRIP ASSY, UPPER, 65PJ	100370
Part	Trip Mechanisms	TRIP ASSY, LOWER, 65PJ	100373
Part	Trip Mechanisms	TRIP ASSY,LOWER - 85EHD	111129
Part	Trip Mechanisms	TRIP ASSY, UPPER - 85EHD-	111130
Part	Trip Mechanisms	TRIP ASSY,LOWER - 35FP 13	114318
Part	Trip Mechanisms	Upr/Lwr trip assy 35A-TNT	114653
Part	Trip Mechanisms	RIP HARDWARE KIT 85EHD	179992
Part	Vanes	VANE,1/2,NOZ,PLSTC - 24	101618
Part	Vine Clips	VINE CLIP 16 18mm	CLIP1618
Part	Vine Clips	VINE CLIP 20mm	CLIP20
Part	Wedge	WEDGE,14&20	111188