



Orlando Ricardo Santos
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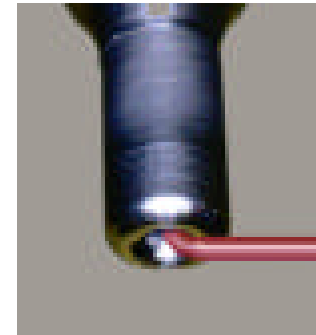
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Wire Guide Tubes for Coil Winding

Orlando Ricardo Santos, sale **Wire Guide nozzles** to fit coil winding machines from all the major manufacturers, Including Tanaka, Marsilli, Meteor, Prosys, Siemens, Bachi, Sipro, Wey Hwang, Sarcem, Necoa, Nittoku, ATS, etc. There are hundreds of sizes in the range including custom sizes, usually at no extra cost. See a sample of the sizes in the accompanying sheet.

The wire guide nozzles produced by us provide the best quality/price ratio because of careful choice of material and manufacturing process.



We commercialize nozzles to address all winding situations. The range includes cutter, threaded, multicut, bifilar and bent nozzles.

Best Regards
Orlando Santos

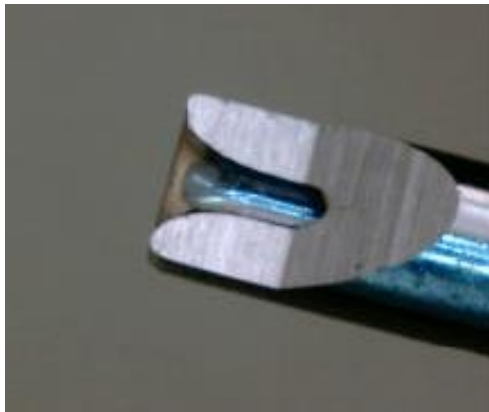
Gentle on the flow of Wire

Wire Guide Tube design considerations

The wire guide nozzles from Sci-bore receive meticulous attention to detail. The nozzles are made from high carbon bearing steel tempered to 62-64 HRC for the best combination of resistance to rust, resistance to wear, and resistance to shattering. These results in **minimum down time** during coil winding.

Our wire guide nozzles are made for **high quality** production of sensors, coils and transformers.

Our nozzles excel with a **mirror finish** where it matters - where the wire is fed in and where the wire flows out, with a smooth bore in between.



The detailed attention goes further. Examine the **shape** of the curves at the ends. The tip is designed to offer smooth passage of the wire, even for wire exits at over 90 degrees without losing control (that can occur by over-extending the nose outlet diameter). At the other end, the wire entry is through a carefully engineered

shape that offers a graduated rate of change in the curvature for the smoothest passage to the bore, yet offering a wide entrance for a blind feed. These factors help **minimize chances of wire stripping**.



Standard and Custom solutions for the wire guide Industry.

We are the expertise to provide the winding community with wire guide tubes (nozzles), of all sizes and shapes. These include cutter, multisteped, threaded, bent and other shapes.

These and other tube types available. Please call, fax or email for details.

Our recommended wire size to bore size is as follows:

Wire size ID (bore size) min

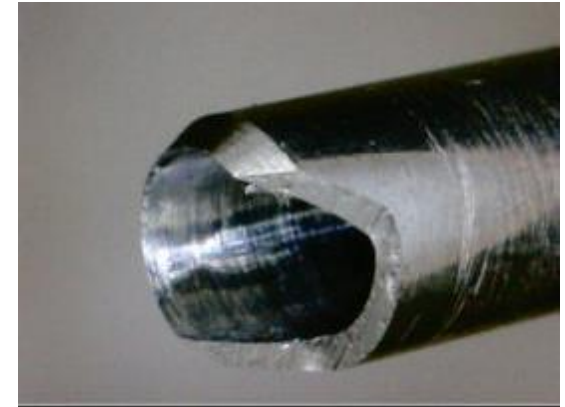
0.01mm to 0.4mm Wire size X 2 = bore

0.45mm to 0.80mm Wire size X 1.5= bore

0.85mm to 1.40mm Wire size + .5 = bore

Cutter and Threaded Nozzles

Wide range of shapes, cutter and threaded nozzles are also available.



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Representation: Europe and South America

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Part Number	O.D.	CD	Bore	OL	CL
1300-030-050000	1.3		0.3	5	
1310-040-350100	1.3	1	0.4	35	10
1300-050-050000	1.3		0.5	5	
1300-070-320000	1.3		0.7	32	
1508-035-350080	1.5	0.8	0.3	35	8
1600-060-347000	1.6	0.6		34.7	
1600-070-110000	1.6	0.7		11	
1600-080-110000	1.6	0.8		11	
2000-030-050000	2	0.3		5	
2010-030-050025	2	1	0.3	5	2.5
2008-030-100070	2	0.8	0.3	10	7
2000-030-120000	2	0.3		12	
2006-030-140020	2	0.6	0.3	14	2
2007-030-140020	2	0.7	0.3	14	2
2012-030-250100	2	1.2	0.3	25	10
2000-030-290000	2	0.3		29	
2000-030-350000	2	0.3		35	
2007-030-350042	2	0.7	0.3	35	4.2
2008-030-350050	2	0.8	0.3	35	5
2008-030-350060	2	0.8	0.3	35	6
2008-030-350080	2	0.8	0.3	35	8
2012-030-350100	2	1.2	0.3	35	10
2009-030-500060	2	0.9	0.3	50	6
2000-035-050000	2		0.3	5	
2015-035-119065	2	1.5	0.3	11.9	6.5
2008-035-200118	2	0.8	0.3	20	11.8
2012-035-250100	2	1.2	0.3	25	10
2008-035-350080	2	0.8	0.3	35	8
2008-035-350100	2	0.8	0.3	35	10
2012-035-350100	2	1.2	0.3	35	10
2008-035-440080	2	0.8	0.3	44	8
2010-040-140020	2	1	0.4	14	2
2010-040-140050	2	1	0.4	14	5
2010-040-260060	2	1	0.4	26	6
2000-040-290000	2		0.4	29	
2008-040-300077	2	0.8	0.4	30	7.7
2008-040-350050	2	0.8	0.4	35	5
2008-040-350080	2	0.8	0.4	35	8
2008-040-350100	2	0.8	0.4	35	10
2010-040-350050	2	1	0.4	35	5
2010-040-350060	2	1	0.4	35	6
2010-040-350100	2	1	0.4	35	10
2014-040-350100	2	1.4	0.4	35	10

Part Number	O.D.	CD	Bore	OL	CL
2012-040-380090	2	1.2	0.4	8	9
2000-050-050000	2		0.5	5	
2000-050-250000	2		0.5	25	
2000-050-300000	2		0.5	30	
2008-050-300050	2	0.8	0.5	30	5
2008-050-300077	2	0.8	0.5	30	7.7
2010-050-300095	2	1	0.5	30	9.5
2000-050-350000	2		0.5	35	
2008-050-350050	2	0.8	0.5	35	5
2012-050-350080	2	1.2	0.5	35	8
2012-050-350100	2	1.2	0.5	35	10
2000-050-380000	2		0.5	38	
2000-050-400000	2		0.5	40	
2012-050-442083	2	1.2	0.5	44.2	8.3
2000-050-500000	2		0.5	50	
2012-050-500100	2	1.2	0.5	50	10
2012-050-350065	2	1.2	0.5	35	6.5
2000-060-050000	2		0.6	5	
2015-060-102050	2	1.5	0.6	10.2	5
2012-060-140050	2	1.2	0.6	14	5
2014-060-140050	2	1.4	0.6	14	5
2000-060-250000	2		0.6	25	
2014-060-254080	2	1.4	0.6	25.4	8
2000-060-286000	2		0.6	28.6	
2000-060-300000	2		0.6	30	
2010-060-320080	2	1	0.6	32	8
2000-060-350000	2		0.6	35	
2010-060-350100	2	1	0.6	35	10
2012-060-350050	2	1.2	0.6	35	5
2012-060-350100	2	1.2	0.6	35	10
2014-060-350100	2	1.4	0.6	35	10
2016-060-350100	2	1.6	0.6	35	10
2000-060-380000	2		0.6	38	
2000-060-480000	2		0.6	48	
2010-060-480080	2	1	0.6	48	8
2012-060-480100	2	1.2	0.6	48	10
2000-060-500000	2		0.6	50	
2016-060-500120	2	1.6	0.6	50	12
2016-060-500220	2	1.6	0.6	50	22
2000-080-050000	2		0.8	5	
2015-080-119064	2	1.5	0.8	11.9	6.4
2015-080-120100	2	1.5	0.8	12	10
2015-080-126350	2	1.5	0.8	12.6	35

Part Number	O.D.	CD	Bore	OL	CL
2012-080-140050	2	1.2	0.8	14	5
2014-080-140050	2	1.4	0.8	14	5
2000-080-300000	2		0.8	30	
2000-080-350000	2		0.8	35	
2012-080-350050	2	1.2	0.8	35	5
2014-080-350050	2	1.4	0.8	35	5
2014-080-350100	2	1.4	0.8	35	10
2015-080-350100	2	1.5	0.8	35	10
2016-080-350100	2	1.6	0.8	35	10
2000-080-450000	2		0.8	45	
2000-080-480000	2		0.8	48	
2016-080-480120	2	1.6	0.8	48	12
2000-080-500000	2		0.8	50	
2000-100-050000	2		1.0	5	
2000-100-100000	2		1.0	10	
2000-100-300000	2		1.0	30	
2000-100-350000	2		1.0	35	
2016-100-350064	2	1.6	1.0	35	6.4
2000-100-500000	2		1.0	50	
2000-120-060000	2		1.2	6	
2000-120-350000	2		1.2	35	
2000-120-600000	2		1.2	60	
2314-080-400090	2.3	1.4	0.8	40	9
2400-120-320000	2.4		1.2	32	
2400-130-300000	2.4		1.3	30	
2500-060-350000	2.5		0.6	35	
2515-080-300080	2.5	1.5	0.8	30	8
2500-080-500000	2.5		0.8	50	
2500-100-175000	2.5		1.0	17.5	
2518-100-350100	2.5	1.8	1.0	35	10
2500-100-450000	2.5		1.0	45	
2500-120-350000	2.5		1.2	35	
2500-120-450000	2.5		1.2	45	
2500-120-480000	2.5		1.2	48	
2500-150-350000	2.5		1.5	35	
2500-150-480000	2.5		1.5	48	
3007-030-090050	3	0.7	0.3	9	5
3010-030-120070	3	1	0.3	12	7
3007-030-220060	3	0.7	0.3	22	6
3010-030-220060	3	1	0.3	22	6
3010-030-220100	3	1	0.3	22	10
3018-030-220100	3	1.8	0.3	22	10
3010-030-250100	3	1	0.3	25	10

Part Number	O.D.	CD	Bore	OL	CL
3015-030-250100	3	1.5	0.3	25	10
3015-030-250150	3	1.5	0.3	25	15
3008-030-300055	3	0.8	0.3	30	5.5
3008-030-300070	3	0.8	0.3	30	7
3008-030-300150	3	0.8	0.3	30	15
3010-030-300080	3	1	0.3	30	8
3010-030-300100	3	1	0.3	30	10
3010-030-300150	3	1	0.3	30	15
3010-030-300160	3	1	0.3	30	16
3012-030-300100	3	1.2	0.3	30	10
3010-030-350100	3	1	0.3	35	10
3012-030-350180	3	1.2	0.3	35	18
3015-030-350130	3	1.5	0.3	35	13
3016-030-350100	3	1.6	0.3	35	10
3015-030-400100	3	1.5	0.3	40	10
3007-030-450080	3	0.7	0.3	45	8
3008-030-450100	3	0.8	0.3	45	10
3010-030-450050	3	1	0.3	45	5
3010-030-450100	3	1	0.3	45	10
3012-030-450100	3	1.2	0.3	45	10
3014-030-450120	3	1.4	0.3	45	12
3014-030-450160	3	1.4	0.3	45	16
3015-030-450100	3	1.5	0.3	45	10
3010-030-550100	3	1	0.3	55	10
3000-030-600000	3		0.3	60	
3010-035-220100	3	1	0.3	22	10
3010-035-250100	3	1	0.3	25	10
3010-035-450085	3	1	0.3	45	8.5
3012-035-450120	3	1.2	0.3	45	12
3012-035-450122	3	1.2	0.3	45	12.2
3016-040-210150	3	1.6	0.4	21	15
3012-040-220100	3	1.2	0.4	22	10
3015-040-220100	3	1.5	0.4	22	10
3010-040-250100	3	1	0.4	25	10
3012-040-250100	3	1.2	0.4	25	10
3000-040-300000	3		0.4	30	
3010-040-300070	3	1	0.4	30	7
3010-040-300100	3	1	0.4	30	10
3010-040-300125	3	1	0.4	30	12.5
3010-040-300130	3	1	0.4	30	13
3012-040-300100	3	1.2	0.4	30	10
3015-040-300100	3	1.5	0.4	30	10
3020-040-300140	3	2	0.4	30	14

Part Number	O.D.	CD	Bore	OL	CL
3012-040-350100	3	1.2	0.4	35	10
3000-040-450000	3		0.4	45	
3010-040-450050	3	1	0.4	45	5
3010-040-450060	3	1	0.4	45	6
3010-040-450120	3	1	0.4	45	12
3010-040-450150	3	1	0.4	45	15
3012-040-450100	3	1.2	0.4	45	10
3014-040-450120	3	1.4	0.4	45	12
3014-040-450170	3	1.4	0.4	45	17
3015-040-450150	3	1.5	0.4	45	15
3015-040-450170	3	1.5	0.4	45	17
3016-040-450120	3	1.6	0.4	45	12
3016-040-450150	3	1.6	0.4	45	15
3000-050-120000	3		0.5	12	
3000-050-220000	3		0.5	22	
3012-050-250100	3	1.2	0.5	25	10
3010-050-300070	3	1	0.5	30	7
3010-050-300100	3	1	0.5	30	10
3010-050-300120	3	1	0.5	30	12
3012-050-300100	3	1.2	0.5	30	10
3014-050-300080	3	1.4	0.5	30	8
3012-050-350001	3	1.2	0.5	35	0.1
3012-050-350100	3	1.2	0.5	35	10
3013-050-350100	3	1.3	0.5	35	10
3016-050-350100	3	1.6	0.5	35	10
3014-050-400100	3	1.4	0.5	40	10
3015-050-400100	3	1.5	0.5	40	10
3015-050-400120	3	1.5	0.5	40	12
3016-050-400090	3	1.6	0.5	40	9
3016-050-400100	3	1.6	0.5	40	10
3010-050-450060	3	1	0.5	45	6
3012-050-450100	3	1.2	0.5	45	10
3012-050-450150	3	1.2	0.5	45	15
3012-050-450170	3	1.2	0.5	45	17
3012-050-450200	3	1.2	0.5	45	20
3013-050-450120	3	1.3	0.5	45	12
3015-050-450070	3	1.5	0.5	45	7
3015-050-450150	3	1.5	0.5	45	15
3015-050-450170	3	1.5	0.5	45	17
3015-050-450180	3	1.5	0.5	45	18
3016-050-450150	3	1.6	0.5	45	15
3012-050-500100	3	1.2	0.5	50	10
3013-050-510120	3	1.3	0.5	51	12

Part Number	O.D.	CD	Bore	OL	CL
3013-050-550120	3	1.3	0.5	55	12
3000-060-125000	3		0.6	12.5	
3015-060-150090	3	1.5	0.6	15	9
3015-060-180030	3	1.5	0.6	18	3
3015-060-210150	3	1.5	0.6	21	15
3014-060-220080	3	1.4	0.6	22	8
3015-060-220100	3	1.5	0.6	22	10
3000-060-225000	3		0.6	22.5	
3014-060-250100	3	1.4	0.6	25	10
3015-060-250100	3	1.5	0.6	25	10
3015-060-250150	3	1.5	0.6	25	15
3015-060-250155	3	1.5	0.6	25	15.5
3016-060-250100	3	1.6	0.6	25	10
3016-060-250150	3	1.6	0.6	25	15
3010-060-300070	3	1	0.6	30	7
3010-060-300080	3	1	0.6	30	8
3012-060-300070	3	1.2	0.6	30	7
3012-060-300080	3	1.2	0.6	30	8
3012-060-300100	3	1.2	0.6	30	10
3014-060-300060	3	1.4	0.6	30	6
3014-060-300100	3	1.4	0.6	30	10
3015-060-300080	3	1.5	0.6	30	8
3015-060-300140	3	1.5	0.6	30	14
3016-060-300100	3	1.6	0.6	30	10
3012-060-350100	3	1.2	0.6	35	10
3014-060-350100	3	1.4	0.6	35	10
3015-060-350250	3	1.5	0.6	35	25
3016-060-350100	3	1.6	0.6	35	10
3000-060-400000	3		0.6	40	
3014-060-400100	3	1.4	0.6	40	10
3015-060-400100	3	1.5	0.6	40	10
3015-060-400150	3	1.5	0.6	40	15
3015-060-400170	3	1.5	0.6	40	17
3016-060-400090	3	1.6	0.6	40	9
3016-060-400100	3	1.6	0.6	40	10
3019-060-400280	3	1.9	0.6	40	28
3020-060-400080	3	2	0.6	40	8
3020-060-400120	3	2	0.6	40	12
3000-060-450000	3		0.6	45	
3010-060-450060	3	1	0.6	45	6
3012-060-450060	3	1.2	0.6	45	6
3012-060-450100	3	1.2	0.6	45	10
3012-060-450150	3	1.2	0.6	45	15

Part Number	O.D.	CD	Bore	OL	CL
3013-060-450120	3	1.3	0.6	45	12
3014-060-450120	3	1.4	0.6	45	12
3015-060-450050	3	1.5	0.6	45	5
3015-060-450150	3	1.5	0.6	45	15
3015-060-450170	3	1.5	0.6	45	17
3016-060-450100	3	1.6	0.6	45	10
3016-060-450120	3	1.6	0.6	45	12
3016-060-450150	3	1.6	0.6	45	15
3018-060-450150	3	1.8	0.6	45	15
3020-060-450080	3	2	0.6	45	8
3020-060-450110	3	2	0.6	45	11
3020-060-450150	3	2	0.6	45	15
3015-060-500150	3	1.5	0.6	50	15
3014-060-550120	3	1.4	0.6	55	12
3015-060-550050	3	1.5	0.6	55	5
3015-060-550080	3	1.5	0.6	55	8
3018-060-550120	3	1.8	0.6	55	12
3019-060-550120	3	1.9	0.6	55	12
3012-060-570240	3	1.2	0.6	57	24
3012-060-570260	3	1.2	0.6	57	26
3015-060-570240	3	1.5	0.6	57	24
3015-060-570260	3	1.5	0.6	57	26
3015-060-600150	3	1.5	0.6	60	15
3020-080-280120	3	2	0.8	28	12
3014-080-300060	3	1.4	0.8	30	6
3015-080-350250	3	1.5	0.8	35	25
3015-080-400080	3	1.5	0.8	40	8
3015-080-400160	3	1.5	0.8	40	16
3014-080-450100	3	1.4	0.8	45	10
3020-080-450150	3	2	0.8	45	15
3025-080-450150	3	2.5	0.8	45	15
3015-080-480100	3	1.5	0.8	48	10
3020-080-140090	3	2	0.8	14	9
3020-080-165070	3	2	0.8	16.5	7
3020-080-175080	3	2	0.8	17.5	8
3000-080-180000	3		0.8	18	
3015-080-180030	3	1.5	0.8	18	3
3016-080-200100	3	1.6	0.8	20	10
3020-080-210150	3	2	0.8	21	15
3016-080-250100	3	1.6	0.8	25	10
3016-080-250200	3	1.6	0.8	25	20
3020-080-250100	3	2	0.8	25	10
3020-080-285140	3	2	0.8	28.5	14

Part Number	O.D.	CD	Bore	OL	CL
3000-080-300000	3		0.8	30	
3014-080-300080	3	1.4	0.8	30	8
3015-080-300080	3	1.5	0.8	30	8
3015-080-300100	3	1.5	0.8	30	10
3016-080-300100	3	1.6	0.8	30	10
3020-080-300120	3	2	0.8	30	12
3020-080-300160	3	2	0.8	30	16
3020-080-330130	3	2	0.8	33	13
3000-080-350000	3		0.8	35	
3012-080-350100	3	1.2	0.8	35	10
3020-080-350060	3	2	0.8	35	6
3020-080-350064	3	2	0.8	35	6.4
3020-080-350100	3	2	0.8	35	10
3020-080-350115	3	2	0.8	35	11.5
3000-080-383000	3		0.8	38.3	
3016-080-400100	3	1.6	0.8	40	10
3018-080-400150	3	1.8	0.8	40	15
3019-080-400100	3	1.9	0.8	40	10
3020-080-400100	3	2	0.8	40	10
3020-080-400120	3	2	0.8	40	12
3000-080-450000	3		0.8	45	
3016-080-450120	3	1.6	0.8	45	12
3016-080-450200	3	1.6	0.8	45	20
3020-080-450080	3	2	0.8	45	8
3020-080-450100	3	2	0.8	45	10
3020-080-450120	3	2	0.8	45	12
3020-080-450130	3	2	0.8	45	13
3020-080-450150	3	2	0.8	45	15
3020-080-450160	3	2	0.8	45	16
3020-080-450165	3	2	0.8	45	16.5
3020-080-450167	3	2	0.8	45	16.7
3020-080-450170	3	2	0.8	45	17
3020-080-450180	3	2	0.8	45	18
3020-080-450210	3	2	0.8	45	21
3025-080-450150	3	2.5	0.8	45	15
3020-080-500115	3	2	0.8	50	11.5
3025-080-500250	3	2.5	0.8	50	25
3020-080-510120	3	2	0.8	51	12
3020-080-681237	3	2	0.8	68.1	23.7
3000-100-350000	3		1.0	35	
3000-100-250000	3		1.0	25	
3016-100-250080	3	1.6	1.0	25	8
3019-100-250100	3	1.9	1.0	25	10

Part Number	O.D.	CD	Bore	OL	CL
3020-100-250080	3	2	1.0	25	8
3020-100-285100	3	2	1.0	28.5	10
3000-100-300000	3		1.0	30	
3016-100-300100	3	1.6	1.0	30	10
3020-100-300100	3	2	1.0	30	10
3025-100-300165	3	2.5	1.0	30	16.5
3019-100-320100	3	1.9	1.0	32	10
3020-100-330130	3	2	1.0	33	13
3000-100-350000	3		1.0	35	
3015-100-350100	3	1.5	1.0	35	10
3015-100-350125	3	1.5	1.0	35	12.5
3019-100-350130	3	1.9	1.0	35	13
3020-100-350100	3	2	1.0	35	10
3020-100-350125	3	2	1.0	35	12.5
3000-100-400000	3		1.0	40	
3015-100-400080	3	1.5	1.0	40	8
3020-100-400080	3	2	1.0	40	8
3020-100-400100	3	2	1.0	40	10
3020-100-400170	3	2	1.0	40	17
3020-100-410070	3	2	1.0	41	7
3000-100-450000	3		1.0	45	
3016-100-450120	3	1.6	1.0	45	12
3020-100-450100	3	2	1.0	45	10
3020-100-450120	3	2	1.0	45	12
3020-100-450150	3	2	1.0	45	15
3020-100-450160	3	2	1.0	45	6
3020-100-450170	3	2	1.0	45	17
3020-100-450184	3	2	1.0	45	18.4
3020-100-450200	3	2	1.0	45	20
3000-100-500000	3		1.0	50	
3020-100-500115	3	2	1.0	50	11.5
3020-100-500120	3	2	1.0	50	12
3000-100-600000	3		1.0	60	
3020-100-600080	3	2	1.0	60	8
3020-100-600180	3	2	1.0	60	18
3000-120-140000	3		1.2	14	
3000-120-300000	3		1.2	30	
3025-120-300165	3	2.5	1.2	30	16.5
3000-120-350000	3		1.2	35	
3020-120-350080	3	2	1.2	35	8
3000-120-400000	3		1.2	40	
3020-120-450150	3	2	1.2	45	15
3025-120-450125	3	2.5	1.2	45	12.5

Part Number	O.D.	CD	Bore	OL	CL
3025-120-450160	3	2.5	1.2	45	16
3025-120-450162	3	2.5	1.2	45	16.2
3000-120-500000	3		1.2	50	
3000-120-600000	3		1.2	60	
3000-130-300000	3		1.3	30	
3020-130-300100	3	2	1.3	30	10
3025-130-300130	3	2.5	1.3	30	13
3000-130-350000	3		1.3	35	
3020-130-350100	3	2	1.3	35	10
3000-130-400000	3		1.3	40	
3020-130-400100	3	2	1.3	40	10
3000-130-450000	3		1.3	45	
3020-130-450100	3	2	1.3	45	10
3020-130-450150	3	2	1.3	45	15
3000-130-500000	3		1.3	50	
3000-140-450000	3		1.4	45	
3000-150-210000	3		1.5	21	
3000-150-250000	3		1.5	25	
3000-150-350000	3		1.5	35	
3000-150-400000	3		1.5	40	
3000-150-450000	3		1.5	45	
3025-150-450150	3	2.5	1.5	45	15
3000-150-600000	3		1.5	60	
3000-160-350000	3		1.6	35	
3000-160-450000	3		1.6	45	
3000-160-480000	3		1.6	48	
3000-165-304000	3		1.6	30.4	
3000-170-445000	3		1.7	44.5	
3000-200-480000	3		2.0	48	
3400-100-349000	3.4		1.0	34.9	
3500-080-350000	3.5		0.8	35	
3526-080-350000	3.5	2.6	0.8	35	
3500-080-520000	3.5		0.8	52	
3524-120-480100	3.5	2.4	1.2	48	10
3530-150-250140	3.5	3	1.5	25	14
3500-200-480000	3.5		2.0	48	
4000-080-120000	4		0.8	12	
4000-080-190000	4		0.8	19	
4020-080-250100	4	2	0.8	25	10
4020-080-300150	4	2	0.8	30	15
4018-080-350100	4	1.8	0.8	35	10
4018-080-380100	4	1.8	0.8	38	10
4020-080-430145	4	2	0.8	43	14.5

Part Number	O.D.	CD	Bore	OL	CL
4018-080-450150	4	1.8	0.8	45	15
4020-080-500150	4	2	0.8	50	15
4000-080-600000	4		0.8	60	
4000-100-120000	4		1.0	12	
4000-100-320000	4		1.0	32	
4020-100-400150	4	2	1.0	40	15
4000-100-510000	4		1.0	51	
4000-100-600000	4		1.0	60	
4000-120-340000	4		1.2	34	
4000-150-250000	4		1.5	25	
4000-150-350000	4		1.5	35	
4000-150-400000	4		1.5	40	
4000-150-500000	4		1.5	50	
4000-150-600000	4		1.5	60	
4000-150-190000	4		1.5	19	
4000-200-350000	4		2.0	35	
4030-200-350100	4	3	2.0	35	10
4030-200-450300	4	3	2.0	45	30
4740-200-350140	4.7	4	2.0	35	14
5010-040-600150	5	1	0.4	60	15
5015-060-600200	5	1.5	0.6	60	20
5018-060-600150	5	1.8	0.6	60	15
5020-060-600175	5	2	0.6	60	17.5
5020-100-450170	5	2	1.0	45	17
5025-100-500150	5	2.5	1.0	50	15
5025-100-500250	5	2.5	1.0	50	25
5030-100-500150	5	3	1.0	50	15
5020-100-553225	5	2	1.0	55.3	22.5
5020-100-600200	5	2	1.0	60	20
5020-100-720180	5	2	1.0	72	18
5040-110-390086	5	4	1.1	39	8.6
5025-110-500190	5	2.5	1.1	50	19
5028-150-142107	5	2.8	1.5	14.2	10.7
5025-150-500160	5	2.5	1.5	50	16
5025-150-500170	5	2.5	1.5	50	17
5030-150-500100	5	3	1.5	50	10
5030-150-550220	5	3	1.5	55	22
5000-150-571000	5		1.5	57.1	
5030-150-600200	5	3	1.5	60	20
5030-150-600225	5	3	1.5	60	22.5
5000-200-300000	5		2.0	30	
5040-200-300140	5	4	2.0	30	14
5040-200-300150	5	4	2.0	30	15

Part Number	O.D.	CD	Bore	OL	CL
5000-200-350000	5		2.0	35	
5000-200-400000	5		2.0	40	
5040-200-450100	5	4	2.0	45	10
5040-200-450200	5	4	2.0	45	20
5040-200-500100	5	4	2.0	50	10
5040-200-500250	5	4	2.0	50	25
5030-200-600220	5	3	2.0	60	22
5000-270-500000	5		2.7	50	
5040-270-390086	5	4	2.7	39	8.6
6030-120-330200	6	3	1.2	33	20
6027-150-400110	6	2.7	1.5	40	11
6000-200-600000	6		2.0	60	
6030-220-375065	6	3	2.2	37.5	6.5
6035-150-400100	6	3.5	1.5	40	10
6035-150-400120	6	3.5	1.5	40	12
6040-200-330200	6	4	2.0	33	20
7000-270-430000	7		2.7	43	
10034-050-550250	10	3.4	0.5	55	25
10015-060-550280	10	1.5	0.6	55	28
10017-060-550280	10	1.7	0.6	55	28
10040-150-550190	10	4	1.5	55	19
10060-150-550280	10	6	1.5	55	28
10060-160-550285	10	6	1.6	55	28.5
10050-230-550300	10	5	2.3	55	30
10050-340-550295	10	5	3.4	55	29.5

The following pages show the “M” types that are non-conventional shapes to customer or Sci-bore drawings. These include cutter, multi-cut, threaded, stator and rotor winding nozzles. The Dimensions refer to the key dimensions but are only representative .

Part Number	O.D.	CD	Bore	OL	CL
M1300-000-320000CT3	1.3			32	
M1318-050-320000CD	1.3	1.8	0.5	32	
M1813-050-100046R	1.8	1.3	0.5	10	4.6
M2000-030-292000CT	2		0.3	29.2	
M2000-030-292000SQ	2		0.3	29.2	
M2000-050-300000C3	2		0.5	30	
M2006-030-350030DC	2	0.6	0.3	35	3
M2009-050-300050G1	2	0.9	0.5	30	5
M2009-050-300050G2	2	0.9	0.5	30	5
M2009-050-300050G3	2	0.9	0.5	30	5
M2012-030-167120BR	2	1.2	0.3	16.7	12
M2014-050-350100CT4	2	1.4	0.5	35	10
M2109-050-038022Y	2.1	0.9	0.5	3.8	2.2
M2316-030-082066B	2.3	1.6	0.3	8.2	6.6
M2620-060-200025RC	2.6	2	0.6	20	2.5
M2800-120-699000B	2.8		1.2	69.9	
M3000-035-293000CT	3		0.3	29.3	
M3000-055-207000GO	3		0.6	20.7	
M3000-060-210000					
M3000-080-180000H	3		0.8	18	
M3000-100-685000IC	3		1.0	68.5	
M3000-120-400000I	3		1.2	40	
M3000-120-685000IC	3		1.2	68.5	
M3000-140-450000L	3		1.4	45	
M3005-030-114839GF	3	0.5	0.3	11.4	83.9
M3006-030-340028DC	3	0.6	0.3	34	2.8
M3009-035-300090DC	3	0.9	0.3	30	9
M3010-030-210120G	3	1	0.3	21	12
M3010-030-450100H	3	1	0.3	45	10
M3010-040-220080IV	3	1	0.4	22	8
M3010-040-300100IV	3	1	0.4	30	10
M3010-040-550055DC	3	1	0.4	55	5.5
M3010-040-550055DC2	3	1	0.4	55	5.5
M3010-040-550100DC	3	1	0.4	55	10
M3010-040-550115DC	3	1	0.4	55	11.5

Part Number	O.D.	CD	Bore	OL	CL
M3010-050-300100IV	3	1	0.5	30	10
M3010-050-320290TH5	3	1	0.5	32	29
M3010-050-325295TH5	3	1	0.5	32.5	29.5
M3011-035-220120G	3	1.1	0.3	22	12
M3012-030-450185DC	3	1.2	0.3	45	18.5
M3012-050-300100DC	3	1.2	0.5	30	10
M3012-050-450080DC	3	1.2	0.5	45	8
M3012-055-450185DC	3	1.2	0.6	45	18.5
M3012-070-420190G1	3	1.2	0.7	42	19
M3012-080-450080DC	3	1.2	0.8	45	8
M3013-030-300150CI	3	1.3	0.3	30	15
M3013-060-400100DC	3	1.3	0.6	40	10
M3014-060-450120C1	3	1.4	0.6	45	12
M3014-080-550120IV	3	1.4	0.8	55	12
M3015-000-250080T3	3	1.5		25	8
M3015-050-350270TH5	3	1.5	0.5	35	27
M3015-050-450150H	3	1.5	0.5	45	15
M3015-050-883230C1	3	1.5	0.5	88.3	23
M3015-060-120070T	3	1.5	0.6	12	7
M3015-060-400100DC	3	1.5	0.6	40	10
M3015-060-550060Sq	3	1.5	0.6	55	6
M3015-060-550080C1	3	1.5	0.6	55	8
M3015-060-550090IV	3	1.5	0.6	55	9
M3016-060-300190GS	3	1.6	0.6	30	19
M3016-060-400100H	3	1.6	0.6	40	10
M3016-060-880230C1	3	1.6	0.6	88	23
M3016-070-300190GS	3	1.6	0.7	30	19
M3016-070-880230C1	3	1.6	0.7	88	23
M3016-070-880270(G)	3	1.6	0.7	88	27
M3016-070-880270BC1	3	1.6	0.7	88	27
M3016-070-880270BV1	3	1.6	0.7	88	27
M3016-070-880270C1	3	1.6	0.7	88	27
M3016-080-550120IV	3	1.6	0.8	55	12
M3018-060-450250H	3	1.8	0.6	45	25
M3018-070-500250H	3	1.8	0.7	50	25
M3018-080-450180IV	3	1.8	0.8	45	18
M3018-080-550120IV	3	1.8	0.8	55	12
M3018-080-681237CT	3	1.8	0.8	68.1	23.7
M3020-030-300150C4	3	2	0.3	30	15
M3020-050-300070G1	3	2	0.5	30	7
M3020-050-300080C1	3	2	0.5	30	8
M3020-050-400070G	3	2	0.5	40	7
M3020-060-350150C1	3	2	0.6	35	15

Part Number	O.D.	CD	Bore	OL	CL
M3020-060-350150CTP	3	2	0.6	35	15
M3020-070-180014TP	3	2	0.7	18	1.4
M3020-070-180017TP	3	2	0.7	18	1.7
M3020-080-175080A	3	2	0.8	17.5	8
M3020-080-175080A2	3	2	0.8	17.5	8
M3020-080-200070RT	3	2	0.8	20	7
M3020-080-410070G	3	2	0.8	41	7
M3020-080-450150H	3	2	0.8	45	15
M3020-080-450167G	3	2	0.8	45	16.7
M3020-080-450170G	3	2	0.8	45	17
M3020-080-681237CT	3	2	0.8	68.1	23.7
M3020-100-180014TP	3	2	1.0	18	1.4
M3020-100-300270TH5	3	2	1.0	30	27
M3020-100-400080G	3	2	1.0	40	8
M3020-100-410070G	3	2	1.0	41	7
M3020-100-450120CT	3	2	1.0	45	12
M3020-100-450120H	3	2	1.0	45	12
M3022-060-880230C1	3	2.2	0.6	88	23
M3022-080-880230C1	3	2.2	0.8	88	23
M3024-080-410070C1	3	2.4	0.8	41	7
M3024-100-410070C1	3	2.4	1.0	41	7
M3028-055-202132GO	3	2.8	0.6	20.2	13.2
M3400-090-349116GD	3.4		0.9	34.9	11.6
M3400-110-320000G	3.4		1.1	32	
M4000-120-210000T	4		1.2	21	
M4000-200-350290TH5	4		2.0	35	29
M4020-080-487160B	4	2	0.8	48.7	16
M4024-080-400200M	4	2.4	0.8	40	20
M4027-130-400110N	4	2.7	1.3	40	11
M4032-110-450250G	4	3.2	1.1	45	25
M4620-100-360110DC	4.6	2	1.0	36	11
M4732-110-450250G	4.7	3.2	1.1	45	25
M5000-160-240090THG	5		1.6	24	9
M5000-200-240090THG	5		2.0	24	9
M5009-060-116061G	5	0.9	0.6	11.6	6.1
M5016-100-104049G	5	1.6	1.0	10.4	4.9
M5020-050-500200M	5	2	0.5	50	20
M5020-100-215125T8	5	2	1.0	21.5	12.5
M5020-100-225090TH	5	2	1.0	22.5	9
M5020-100-300165TH4	5	2	1.0	30	16.5
M5023-160-375110OC	5	2.3	1.6	37.5	11
M5025-100-500200M	5	2.5	1.0	50	20
M5025-150-142035GO	5	2.5	1.5	14.2	3.5

Part Number	O.D.	CD	Bore	OL	CL
M5030-100-125077TM4	5	3	1.0	12.5	7.7
M5030-110-318196TM5	5	3	1.1	31.8	19.6
M5030-110-400195A1	5	3	1.1	40	19.5
M5030-150-500200M	5	3	1.5	50	20
M5032-110-3002004TH	5	3.2	1.1	30	20
M5032-120-3002004TH	5	3.2	1.2	30	20
M5032-150-3002004TH	5	3.2	1.5	30	20
M5034-110-167010TH5	5	3.4	1.1	16.7	1
M5040-000-400200C3	5	4		40	20
M5040-110-300200M5TH	5	4	1.1	30	20
M5040-110-300270FL	5	4	1.1	30	27
M5040-130-390086D	5	4	1.3	39	8.6
M5040-200-390086D	5	4	2.0	39	8.6
M5040-250-390086D	5	4	2.5	39	8.6
M5040-275-390086D	5	4	2.8	39	8.6
M5525-120-350200BF3	5.5	2.5	1.2	35	20
M6000-200-080000H	6		2.0	8	
M6000-400-770000S4	6		4.0	77	
M6015-060-400150DC	6	1.5	0.6	40	15
M6020-080-225090TH	6	2	0.8	22.5	9
M6020-100-215125T8	6	2	1.0	21.5	12.5
M6020-100-225090TH	6	2	1.0	22.5	9
M6020-100-230110TH4	6	2	1.0	3	11
M6020-100-400100D1	6	2	1.0	40	10
M6028-200-381254G	6	2.8	2.0	38.1	25.4
M6030-100-398195DC	6	3	1.0	39.8	19.5
M6030-110-318196TM5	6	3	1.1	31.8	19.6
M6030-120-400195DC	6	3	1.2	40	19.5
M6030-160-350040DC	6	3	1.6	35	4
M6030-160-350200G	6	3	1.6	35	20
M6038-200-330203TP	6	3.8	2.0	33	20.3
M6040-220-400100N	6	4	2.2	40	10
M6040-220-400110N	6	4	2.2	40	11
M6050-180-211105TH	6	5	1.8	21.1	10.5
M6050-180-211105THG	6	5	1.8	21.1	10.5
M6030-220-375650	6	3	2.2	37.5	65
M6030-220-375065OC	6	3	2.2	37.5	6.5
M6622-160-174567OC	6.6	2.2	1.6	17.4	56.7

Part Number	O.D.	CD	Bore	OL	CL
M6623-160-366101OC	6.6	2.3	1.6	36.6	10.1
M6623-160-366101OCS	6.6	2.3	1.6	36.6	10.1
M6623-160-366101OS	6.6	2.3	1.6	36.6	10.1
M6623-160-375110O2	6.6	2.3	1.6	37.5	11
M6623-160-375110OC	6.6	2.3	1.6	37.5	11
M6624-180-174567OC	6.6	2.4	1.8	17.4	56.7
M6626-200-174567OC	6.6	2.6	2.0	17.4	56.7
M6630-160-375110OC	6.6	3	1.6	37.5	11
M6640-300-175905OC	6.6	4	3.0	17.5	90.5
M6645-300-175905OC	6.6	4.5	3.0	17.5	90.5
M8016-050-455090DC	8	1.6	0.5	45.5	9
M8060-235-455195GL	8	6	2.3	45.5	19.5
M10012-040-135060M5	10	1.2	0.4	13.5	6
M10017-060-135060M5	10	1.7	0.6	13.5	6
M10032-165-550100DC	10	3.2	1.6	55	10

Reference system for standard nozzles:

Example

OD= 3.0 mm
CD= 1.6 mm
Bore= 1.0 mm
OL= 30.0 mm
CL= 10.0 mm

