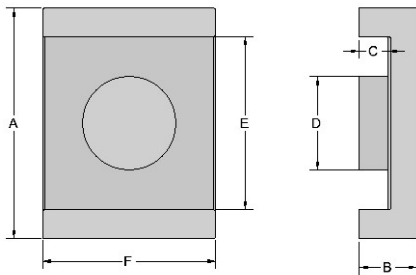
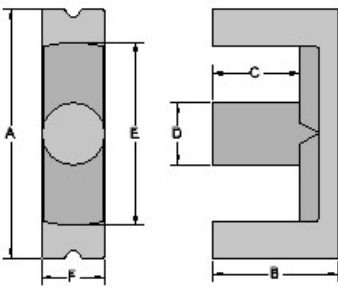
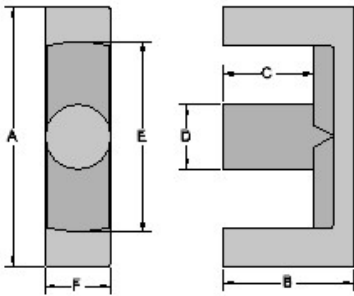
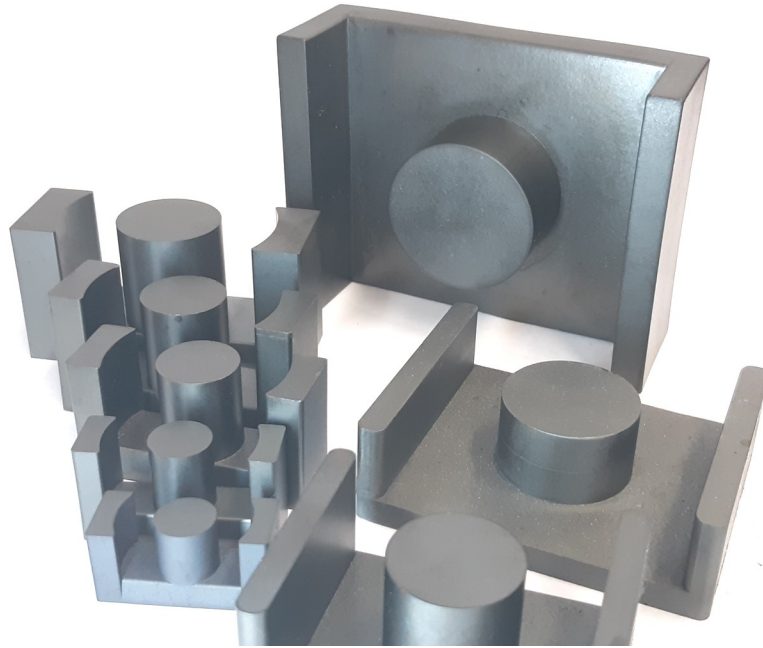
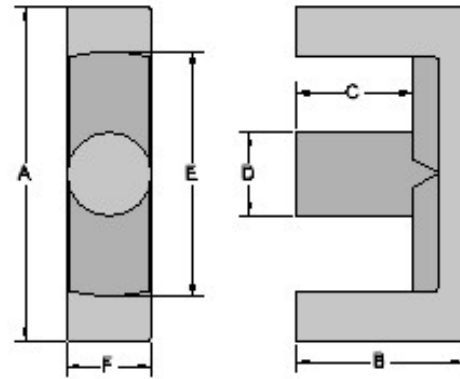
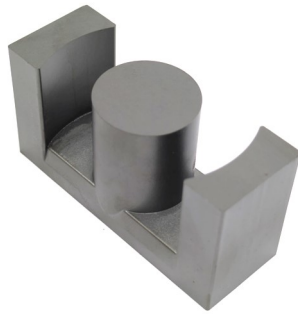


**Size and Shape Specifications**

The round center leg E-core. The circular winding around the center leg helps in managing heat, ensuring the efficiency and durability of the transformer. By having a gapped center leg, you can fine-tune the inductance and enhance the current handling capabilities, which is crucial for maintaining stability and performance in various applications.



Contents	Page
<a href="#"><u>ETD-29</u></a>	2
<a href="#"><u>ETD-34</u></a>	3
<a href="#"><u>ETD-39</u></a>	4
<a href="#"><u>ETD-44</u></a>	5
<a href="#"><u>ETD-49</u></a>	6
<a href="#"><u>ETD-59</u></a>	7
<a href="#"><u>ER-28</u></a>	8
<a href="#"><u>ER-39</u></a>	9
<a href="#"><u>ER-48</u></a>	10
<a href="#"><u>Planar ER-51</u></a>	11
<a href="#"><u>Planar ER-64</u></a>	12
<a href="#"><u>EC-70</u></a>	13
<a href="#"><u>Contacts</u></a>	14
<a href="#"><u>Legacy Tooling</u></a>	14
<a href="#"><u>Information</u></a>	15

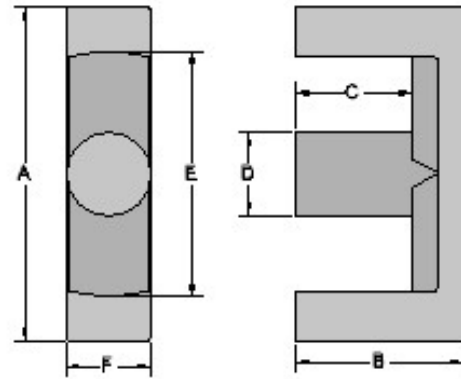
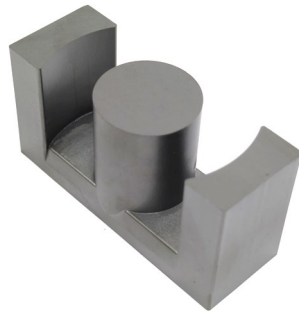


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
29-00-00	29.92	0.61	15.80	0.20	10.97	0.28

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
29-00-00	9.80	22.00	9.50	0.30		

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
29-00-00	72.00	76.00	5,500	143.80	10,930	15.0

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
29-00-00	2580	2850	3610	Mated with itself

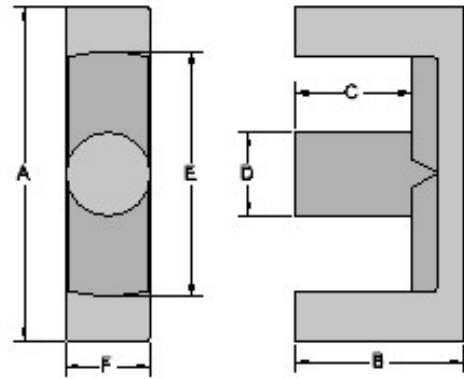
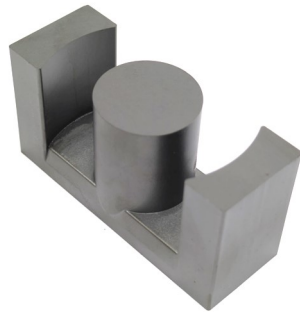


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
34-00-00	34.21	0.69	17.30	0.20	12.09	0.28

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
34-00-00	11.10	25.62	10.80	0.30		

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
34-00-00	79.76	97.30	7,770	187.60	18,260	40

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
34-00-00	2310	3210	4070	Mated with itself

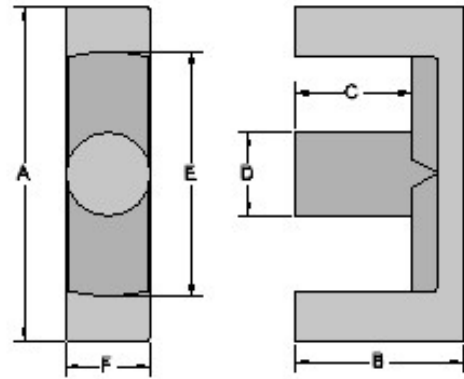
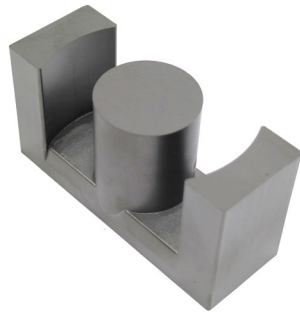


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
39-00-00	39.09	0.79	19.79	0.20	14.61	0.38

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
39-00-00	12.80	29.31	12.50	0.30		

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
39-00-00	93.50	124.90	11,702	257.10	32,110	59

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
39-00-00	3170	3520	4460	Mated with itself

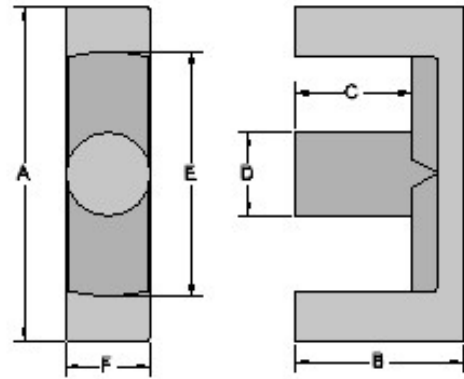
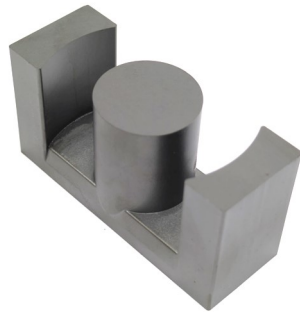


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
44-00-00	43.99	0.89	22.30	0.20	16.51	0.38

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
44-00-00	15.19	32.49	14.81	0.38		

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
44-00-00	104.75	173.20	18,112	305.30	52,880	91

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
44-00-00	3250	4360	5520	Mated with itself

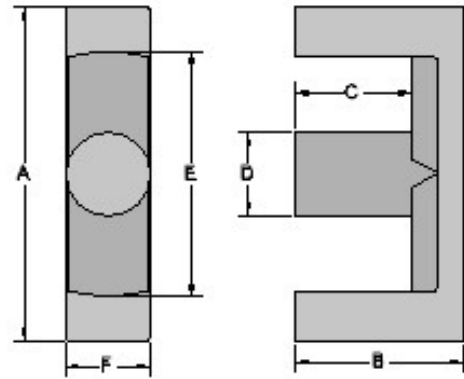
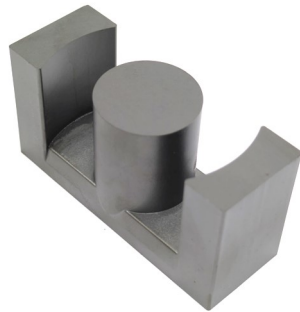


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
49-00-00	48.69	1.09	24.69	0.20	18.08	0.38

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
49-00-00	16.69	36.12	16.31	0.38		

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
49-00-00	115.62	211.40	24,467	374.40	79,140	122

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
49-00-00	4340	4825	6110	Mated with itself

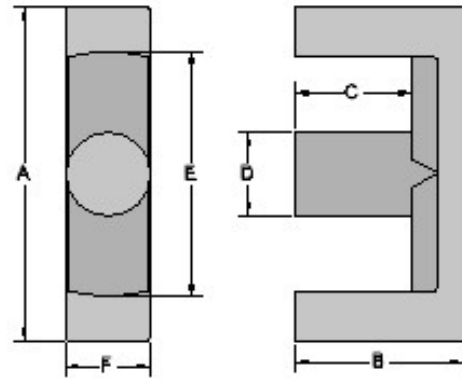
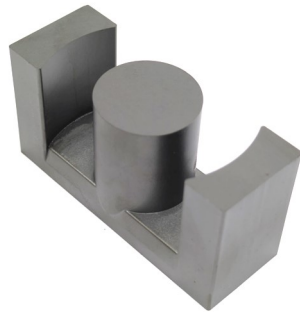


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
59-00-00	59.82	1.20	31.01	0.13	22.50	0.30

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
59-00-00	22.10	43.81	21.92	0.44		

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
59-00-00	115.62	211.40	24,467	374.40	79,140	122

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
59-00-00	4340	4825	6110	Mated with itself



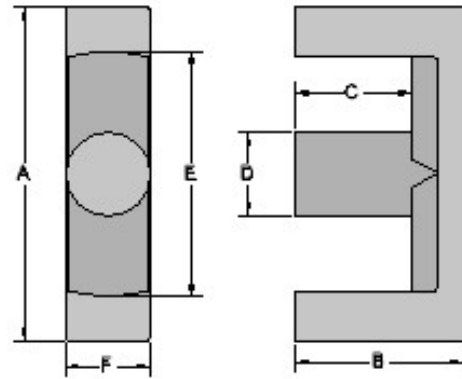
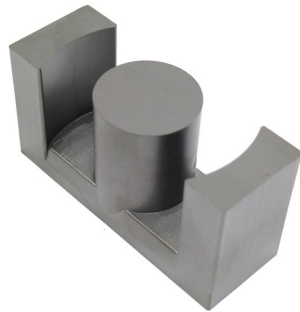
Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
29-14-11	28.50	0.60	14.00	0.30	9.60	0.30
29-17-11			16.90	0.30	12.50	0.30

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
29-14-11	10.20	21.10	11.40	0.30		
29-17-11						

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
29-14-11	63.55	86.70	5,567	113.30	9,920	35
29-17-11	74.94	86.70	6,495	146.90	12,730	41

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
29-14-11	3380	3760	4760	Mated with itself
29-17-11	2835	3150	3985	Mated with itself



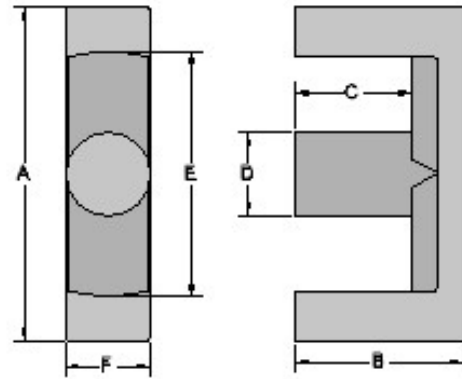
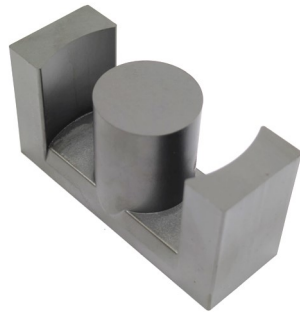


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
39-18-13	39.00	0.80	17.80	0.20	12.60	0.40
39-22-13			22.20	0.40	17.00	0.40

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.		
39-18-13	13.10	28.40	12.80	0.30		
39-22-13						

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
39-18-13	84.00	125.00	10,530	206.64	25,830	56
39-22-13	101.00	125.00	12,700	278.80	34,850	67

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
39-18-13	3800	4180	5700	Mated with itself
39-22-13	3080	3388	4620	Mated with itself

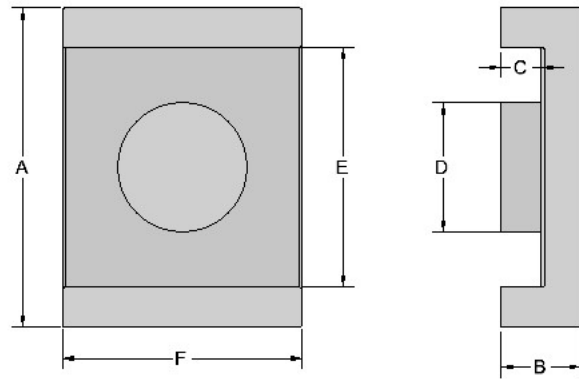


Catalog #	Dimensions [mm]						
	A	+/- tol.	B	+/- tol.	C	+/- tol.	
48-00-00	48.00	1.00	21.00	0.20	15.00	0.30	

Catalog #	Dimensions [mm]							
	D max	E min	F	+/- tol.				
48-00-00	18.30	37.20	20.90	0.40				

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
48-00-00	98.60	253.00	24,935	300.00	75,900	140

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
48-00-00	5200	5720	7800	Mated with itself

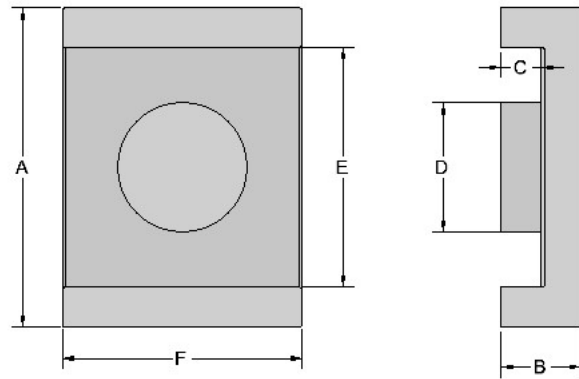


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
51-05-38	51.00	1.00	5.21	0.15	4.95	0.15
51-10-38			10.16			
51-13-38			12.70			
51-25-38			24.99			

Catalog #	Dimensions [mm]					
	D	+/- tol.	E	+/- tol.	F	+/- tol.
51-05-38	I / Plate					
51-10-38	20.00	0.40	41.80	0.80	38.10	0.70
51-13-38						
51-25-38						

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
51-05-38	I / Plate					
51-10-38	73.50	350.50	25762	221.49	77632	133.96
51-13-38	76.50	350.50	26813	276.86	97039	139.43
51-25-38	101.07	350.50	35426	544.86	190974	184.22

Catalog #	AL value +/- 25%		
	N001	50ALL	
51-05-38	I / Plate		
51-10-38	9700	13000	Mated with itself
51-13-38	9320	12490	Mated with itself
51-25-38	7054	9454	Mated with itself

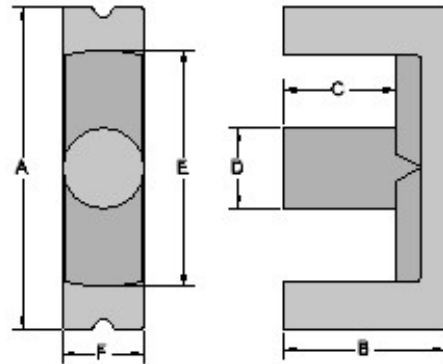


Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
64-06-51	64.00	1.00	6.45	0.15	6.25	0.25
64-13-51			12.70			
64-16-51			16.00			
64-20-51			19.99			

Catalog #	Dimensions [mm]					
	D	+/- tol.	E	+/- tol.	F	+/- tol.
64-06-51	I / Plate				50.80	1.00
64-13-51	25.40	0.50	53.50	1.00		
64-16-51						
64-20-51						

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
64-06-51	I / Plate					
64-13-51	93.40	564.00	52678	356.87	201275	273.92
64-16-51	100.00	564.00	56402	449.66	253606	293.29
64-20-51	107.98	564.00	60900	561.71	316806	316.68

Catalog #	AL value +/- 25%			
	N001	50ALL		
64-06-51	I / Plate			
64-13-51	12500	17100	Mated with itself	
64-16-51	11675	15971	Mated with itself	
64-20-51	10812	14791	Mated with itself	



Catalog #	Dimensions [mm]					
	A	+/- tol.	B	+/- tol.	C	+/- tol.
70-35-16	70.00	1.70	34.50	0.15	22.75	

Catalog #	Dimensions [mm]					
	D max	E min	F	+/- tol.	G max	H ref
70-35-16	16.80	43.30	5.90	0.10	61.30	4.57

Catalog #	$L_e$ mm	$A_e$ mm <sup>2</sup>	$V_e$ mm <sup>3</sup>	$W_a$ mm <sup>2</sup>	$W_a A_e$ mm <sup>4</sup>	Weight Grams
70-35-16	144.00	279.00	40,000	639.28	178,358	252

Catalog #	AL value +/- 25%			
	N001	7070	50ALL	
70-35-16	4310	4800	6465	Mated with itself

CONTACT

[Sales@tscinternational.com](mailto:Sales@tscinternational.com)

39105 Magnetic Blvd

Wadsworth, IL. 60083

Tel: 847 249-4900

Fax: 847 249-4988

Website: [www.tscinternational.com](http://www.tscinternational.com)

Additional ER Tooling is available for legacy or high volume.

We have assents acquired through auction:

Stack-Pole

AVX

Thompson

Magnetics

Hagy

ETD 54	ER 34	ER45	EC 35
	ER 35	ER 49	EC 41
	ER 39	ER 53	EC 52
	ER 42	ER 55	

These can be refurbished for a fraction of the cost of new tooling.



History

Ferrite International was established 1985 as a division of Tempel Steel Company and was purchased in 1990 by Tempel Smith.

Quality Policy

To provide the highest value magnetic materials to our customers through a combination of exceptional quality, price, delivery and service.

Ferrite International is compliant to ISO 9000 1994.

International Environmental Regulatory Compliance

RoHS \* REACH \* ELV \* WEEE \* Halogen Free

Social Accountability Compliance

US Family and Medical Leave Act

US Fair Labor Standards Act

US Environmental Protection Agency

US Occupational Safety and Health Administration

US Clean Air Act

US Equal Employment Opportunity Commission

US National Primary Drinking Water Regulation

US Conflict Free Minerals

Warranty / Disclaimer

"TSC International" expressly warrants to the "Buyer" for whom it manufactures, sells and delivers product made of magnetic materials will conform to specifications and drawings as published within the product catalog. Buyer specifications that have not been approved by the International Electronic Commission shall be considered as a custom product, and will be warranted by TSC International in a separate written agreement.

There are no other express or implied warranties which extend beyond the above-referenced warranty of conformance to the specifications and specifically. TSC International does not warrant that any product will be merchantable or fit for the particular purpose for which the purchaser, its successors, agents or affiliates, intends to use product. Before using these products, buyer agrees to determine suitability of the product for their intended use or application.

Buyer shall notify TSC International in writing (and reasonable detail) of any defect in any product within thirty (30) days after the delivery date thereof. If products do not conform to the specification and TSC determines to its satisfaction that the parts are defective, and the defect is not due to miss-use, accident or improper application, buyer's remedy shall be limited, at TSC international's sole discretion, to either (1) The return of such product in exchange for the return of, or credit for any payment received by TSC International relating thereto; (2) The replacement of such product; or (3) The repair of such product. TSC International shall pay reasonable shipping costs incurred in connection with the return, replacement or repair of any defective product. Solution to resolve defective product shall be within (60) days after written receipt of written notice from the buyer of such defect.

TSC International shall not be liable for any incidental or consequential loss, damage, or expense (including without limitation, economic loss or lost profits) of buyer for any defective product sold and delivered to the buyer regardless of whether such loss, damage or expense results from breach of contract or warranty or commission of tort (including, without limitation, strict liability or negligence).

These products are not designed for use in life support appliances, devices or systems where malfunction of these products can reasonably be expected to result in personal injury, Buyers that are using or selling these products for use in such applications do so at their own risk and agree to indemnify TSC International for any damages resulting from such application.

TSC International reserves the right to makes changes without notice in order to improve design and supply the best possible product.