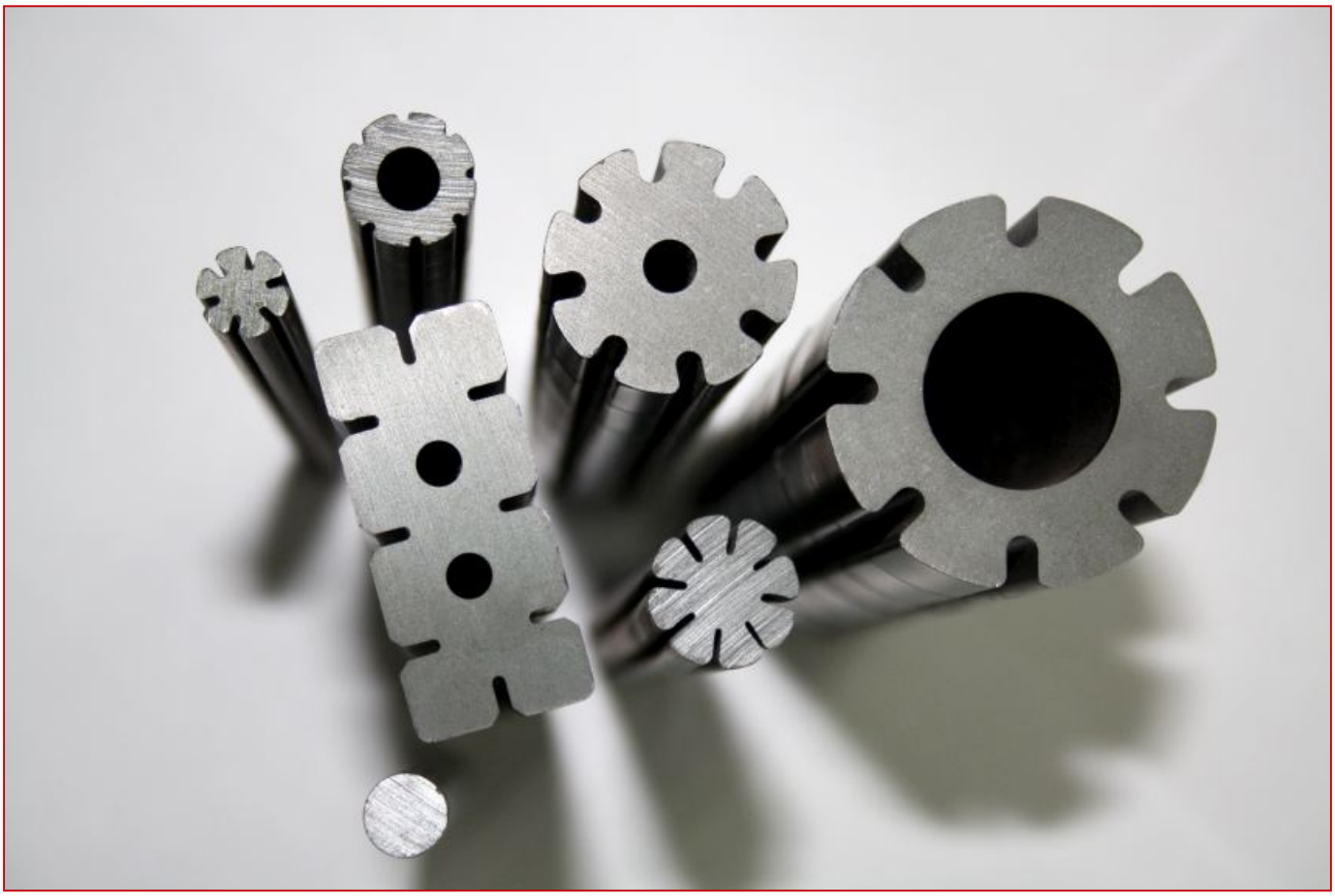
PRODUCT GUIDE

Ferrite Impeder Rods



Mahindra hinoday

About Hinoday

Mahindra Hinoday - The pioneers and leaders

Mahindra Hinoday pioneers the ferrite manufacturing process in India four decades ago and has continuously kept pace with the changing needs of the industry. Today as the largest manufacturer of ferrite, we offer the widest range of Hard & Soft ferrite products in the Indian sub-continent.

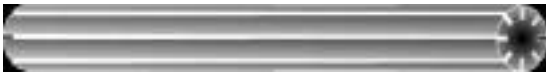
TS 16949:2008 Certified

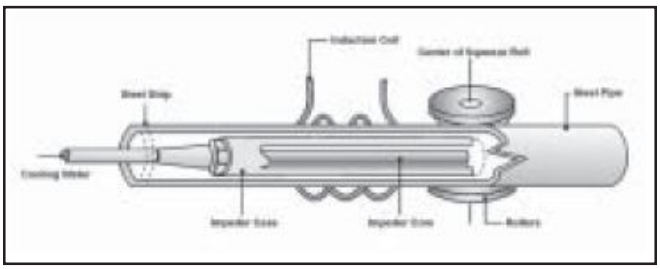
Leadership through Quality
An TS 16949:2008 Company
Ferrite manufacturing is highly technology intensive and involves in diverse fields like chemical, ceramic, metallurgical, mechanical, electrical & electronics engineering. Quality at our company is the outcome of continuous team effort backed by years of experience and expertise in ferrite technology, supported by the best of plant and equipment Our quality management systems have been certified to conform to TS 16949:2008 standard. After all, most of the electronics & automotive giants in India depend on us for international quality ferrites.

A wide range of Soft & Hard Ferrites from a single reliable source.

We are fully geared to meet the ever changing and exacting demands of the rapidly growing electronics industry. The component industry traditionally being amongst the most competitive, our efforts are towards working with customers to develop new products and materials as well as improve process capability substantially, adding value to the customers. This product guide is intended to familarise you with our range of products and help you choose the one best suited to your requirements. Of course we also would welcome your suggestion / feedback which would guide our development efforts for the future.

Impeder Rods





In HIGH FREQUENCY TUBE WELDING PROCESS, mild steel strip of specific width is passed through several sets of steel rolls. The steel strip is converted into an open seam tubular shape. At this stage, the tubular shape is passed through a high frequency induction coil. The coil works as a primary and the open seam tube acts as one turn secondary. The induced current density is highest at the edges and results into rapid heating of these edges. The subsequent pressure rolls press the open red hot seams together to form a butt weld joint. Ferrite rods kept inside the tube aid the process of welding by improving its efficiency.

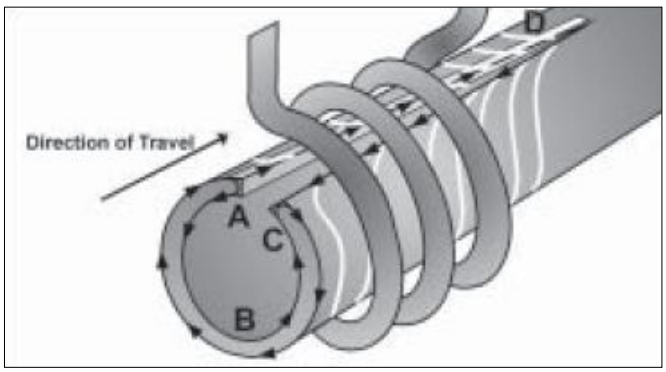
The Impeder is constructed of Ferrite material and is an essential accessory for use in high frequency welding of tubes and pipes. Mahindra Hinoday has developed a rugged performance ferrite core material designated HR4B / HR4. This material best meets the demanding requirements of high frequency welding. The Impeder lowers the reluctance of the magnetic path, thereby saving energy and improving overall process efficiency. HR4B / HR4 cores provide an ideal magnetic path even at high temperatures. High saturation flux combined with high resistance reducing eddy current losses improves mill efficiency. It's high density construction adds the mechanical strength for long life in the severe operating environment in a steel tube mill.

The Process

In induction welding, the high frequency magnetic field from the coil induces an alternating current on the outer side of the open seam tube.

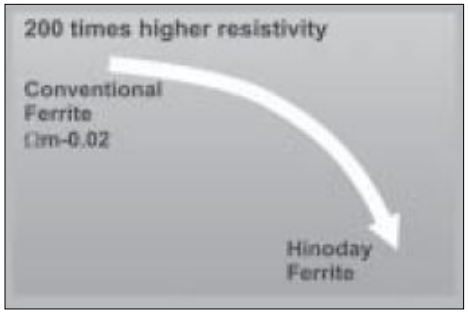
The current can take either of two parallel return paths in the vee (ADC) or around the inside surface (ABC)

Ferrite impeder core reduces the current flowing around the inside surface and thus enhances the “useful” vee current (ADC), which helps heating.



Improve Mill Efficiency

Through a constant interaction with customers Mahindra Hinoday has developed new improved material grade HR4B / HR-4 which help improve mill efficiency.

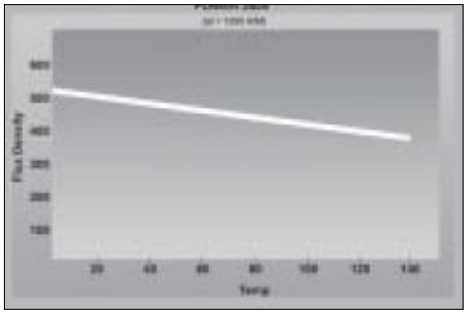


HIGHER RESISTIVITY ⇒ LOWER LOSS

Eddy current losses and resultant heating of ferrite is reduced by increased resistivity of ferrite.

HIGHER Bm ⇒ BETTER HEAT CONCENTRATION

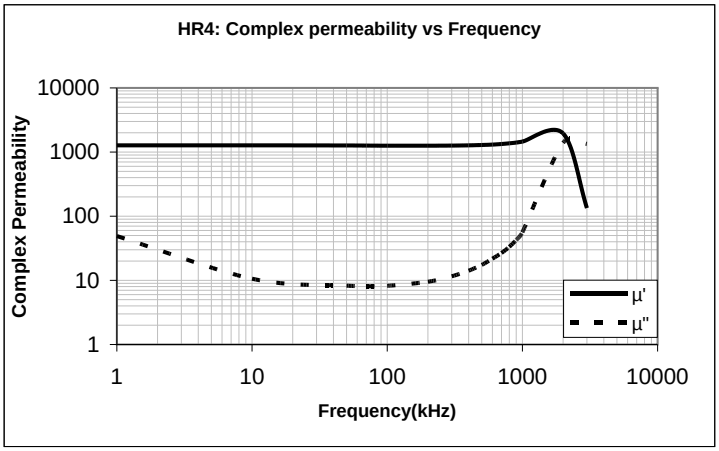
Higher Bm value at higher operating temperature ensures that impedence to waste current is increased, enhancing the "useful" vee current.

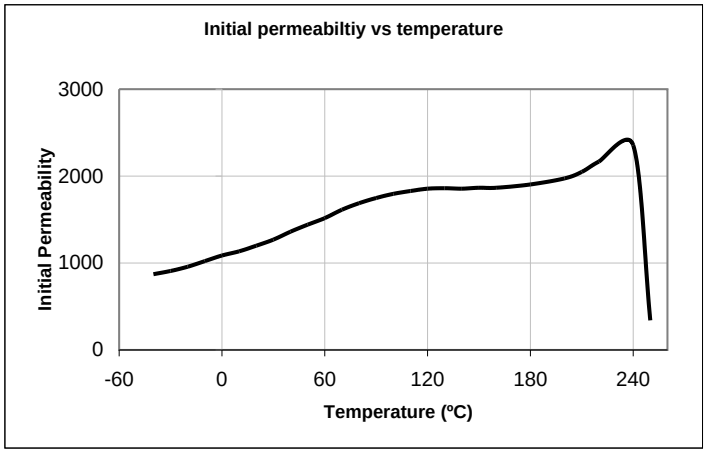


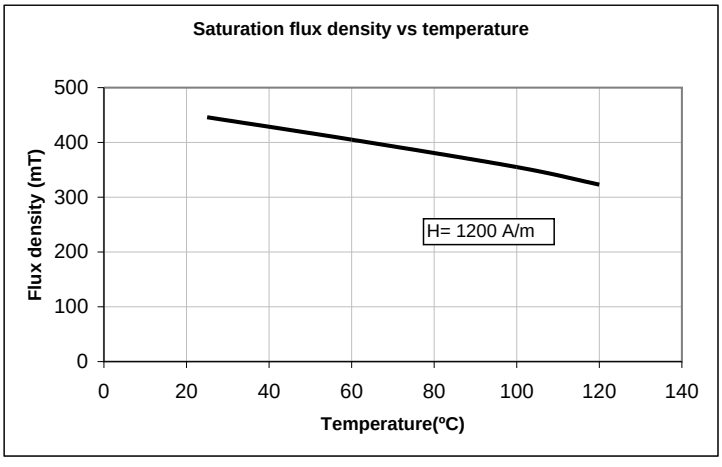
Material Grade : HR-4

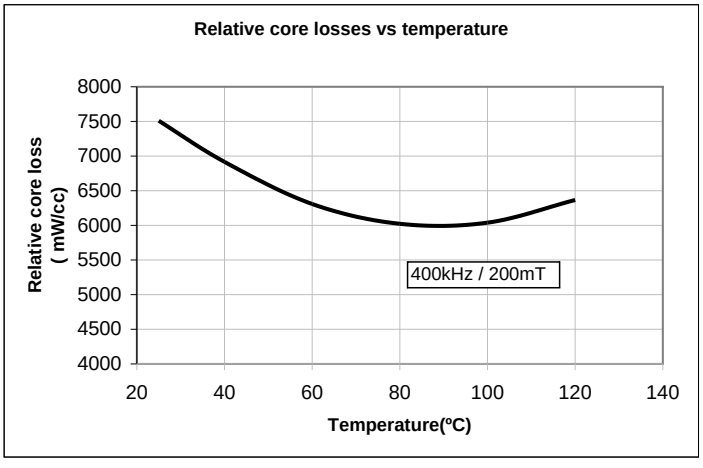
HR-4 : Ferrite Impeder Grade

Properties	Symbol	Unit	Test condition	Values
Initial permeability (±25%)	µi		0.1mT, 25°C	1200
Flux density (min)	Bs	mT	1200A/m, 25°C	440
			1200A/m, 100°C	350
Coercive Field (max)	Hc	A/m	10kHz, 25°C	10
Curie Temperature (min)	Tc	°C		240
Density (min)	d	kg/m^3	25°C	4800
Resisitivity (min)	ρ	Ωm	25°C	4
Powerloss (max)	Pc	mW/cc	400kHz/200mT/25°C	10000
			400kHz/200mT/100°C	7000







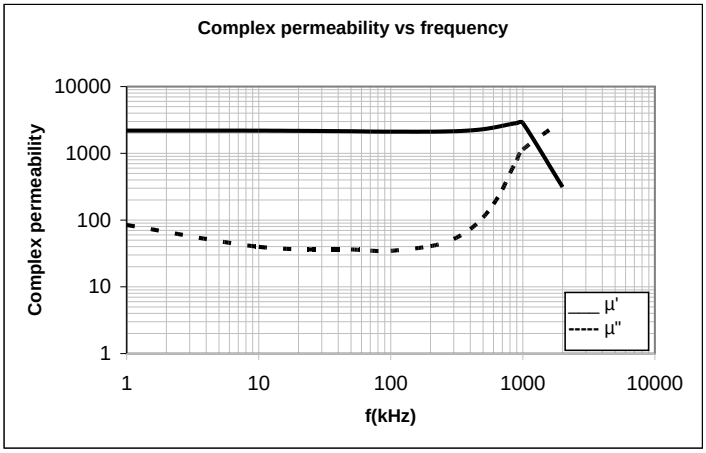


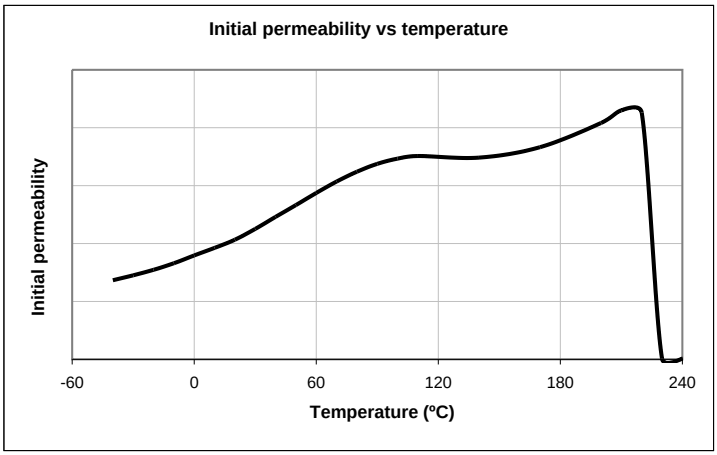
All measurements made on Toroid OD= 30mm, ID=20mm Ht=10mm.

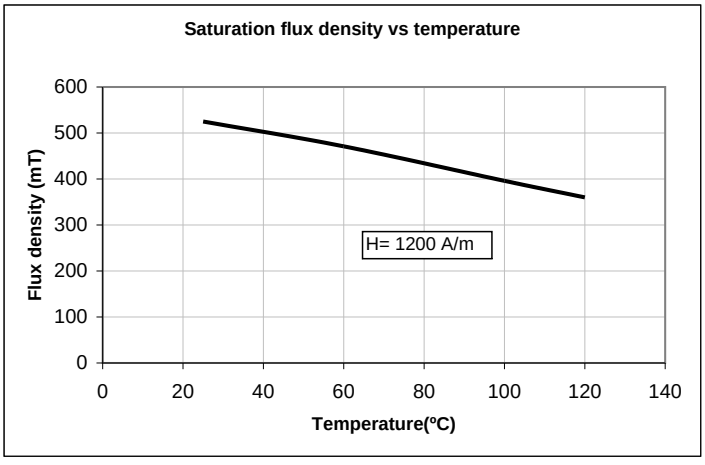
Material Grade : HR-4B

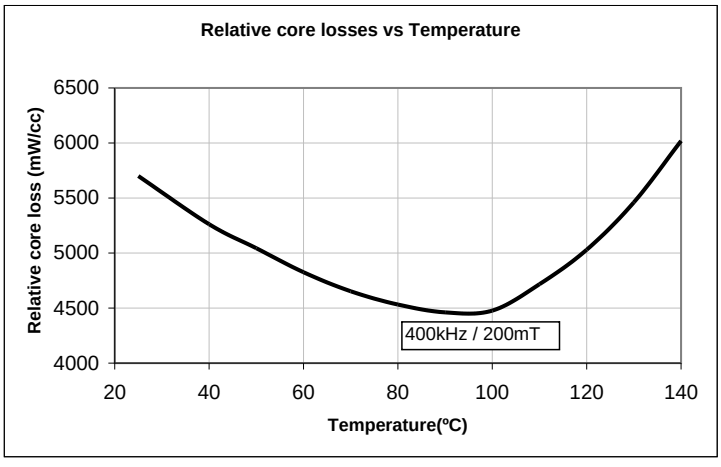
HR-4B : Ferrite Impeder Grade

Properties	Symbol	Unit	Test condition	Values
Initial permeability (±25%)	μi		0.1mT, 25°C	1800
Flux density (min)	Bs	mT	1200A/m, 25°C	500
			1200A/m, 100°C	400
Coercive Field (max)	Hc	A/m	10kHz, 25°C	10
Curie Temperature (min)	Tc	°C		210
Density (min)	d	kg/m^3	25°C	4800
Resisitivity (min)	ρ	Ωm	25°C	4
Powerloss (max)	Pc	mW/cc	400kHz/200mT/25°C	8000
			400kHz/200mT/100°C	6000



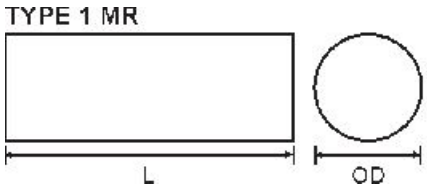






All measurements made on Toroid OD= 30mm, ID=20mm Ht=10mm.

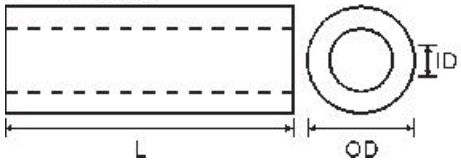
MR Type (Solid Rod)



OD			Length			No of Slots	Type of construction
3	±	0.3	200	±	1.0	6	One piece
4	±	0.3	200	±	1.0	6	One piece
5	±	0.3	200	±	1.0	6	One piece
6	±	0.3	200	±	1.0	6	One piece
7	±	0.3	200	±	1.0	6	One piece
8	±	0.3	200	±	1.0	6	One piece
9	±	0.3	200	±	1.0	6	One piece
10	±	0.4	200	±	1.0	6	One piece
12	±	0.4	200	±	1.0	8	One piece
13	±	0.4	200	±	1.0	8	One piece
15	±	0.5	200	±	1.0	8	One piece
18	±	0.6	200	±	1.0	8	One piece
19	±	0.6	200	±	1.0	8	One piece
21	±	0.6	200	±	1.0	8	One piece
22	±	0.65	200	±	1.0	8	One piece
23	±	0.65	200	±	1.0	8	8 piece joined
25	±	0.65	200	±	1.0	8	8 piece joined
27	±	0.7	200	±	1.0	8	8 piece joined
30	±	1.0	200	±	1.0	8	8 piece joined

MRH Type (Hollow Rod)

TYPE 4 MRH

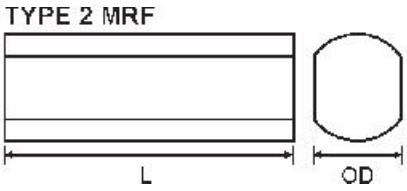


OD			ID			Length			Type of construction
6	±	0.3	3	±	0.3	200	±	1.0	One piece
7	±	0.3	3	±	0.3	200	±	1.0	One piece
8	±	0.3	3	±	0.3	200	±	1.0	One piece
8	±	0.3	4	±	0.3	200	±	1.0	One piece
9	±	0.3	4	±	0.3	200	±	1.0	One piece
9	±	0.3	5.0	±	0.3	200	±	1.0	One piece
10	±	0.4	3	±	0.3	200	±	1.0	One piece
10	±	0.4	5	±	0.3	200	±	1.0	One piece
11	±	0.4	5	±	0.3	200	±	1.0	One piece
11	±	0.4	7	±	0.4	200	±	1.0	One piece
12	±	0.4	3	±	0.3	200	±	1.0	One piece
12	±	0.4	6	±	0.3	200	±	1.0	One piece
12	±	0.4	7.2	±	0.4	200	±	1.0	One piece
13	±	0.5	7	±	0.4	200	±	1.0	One piece
13	±	0.4	9	±	0.4	200	±	1.0	One piece
13.5	±	0.4	7.2	±	0.4	200	±	1.0	One piece
13.5	±	0.5	9	±	0.4	200	±	1.0	One piece
14	±	0.5	7	±	0.4	200	±	1.0	One piece
14.5	±	0.5	8.5	±	0.4	200	±	1.0	One piece
15	±	0.5	5	±	0.3	200	±	1.0	One piece
15	±	0.5	7	±	0.4	200	±	1.0	One piece
15	±	0.5	9	±	0.4	200	±	1.0	One piece
16	±	0.6	7.0	±	0.4	200	±	1.0	One piece
16	±	0.6	8	±	0.4	200	±	1.0	One piece
16	±	0.6	8.5	±	0.4	200	±	1.0	One piece
16	±	0.6	11	±	0.4	200	±	1.0	One piece
17	±	0.6	8	±	0.4	200	±	1.0	One piece
17	±	0.6	8.5	±	0.4	200	±	1.0	One piece
17	±	0.6	9	±	0.4	200	±	1.0	One piece
17	±	0.6	11	±	0.4	200	±	1.0	One piece
18	±	0.6	9	±	0.4	200	±	1.0	One piece
18	±	0.6	10	±	0.4	200	±	1.0	One piece
19	±	0.6	11	±	0.4	200	±	1.0	One piece

MRH Type (Hollow Rod)

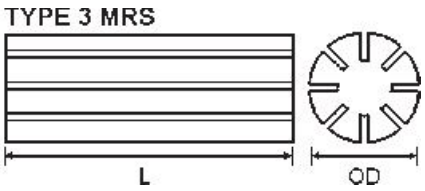
OD			ID			Length			Type of construction
20	±	0.7	10	±	0.4	200	±	1.0	One piece
20	±	0.7	14	±	0.5	200	±	1.0	One piece
21	±	0.7	10.5	±	0.4	200	±	1.0	One piece
21		0.7	13		0.5	200	±	1.0	One piece
22	±	0.7	11.0	±	0.4	200	±	1.0	One piece
22	±	0.7	12.0	±	0.5	200	±	1.0	One piece
22	±	0.7	14	±	0.5	25	±	1.0	One piece
25	±	0.7	10	±	0.4	25	±	1.0	One piece
25.5	±	0.7	18	±	0.5	50	±	1.0	One piece
26		0.7	16		0.5	200	±	1.0	One piece
17	±	0.6	9	±	0.4	200	±	1.0	8 piece joined
18	±	0.6	12	±	0.5	200	±	1.0	8 piece joined
21	±	0.7	14	±	0.5	200	±	1.0	8 piece joined
25	±	0.7	12	±	0.5	200	±	1.0	8 piece joined
26	±	0.7	16	±	0.5	200	±	1.0	8 piece joined
27	±	0.7	13	±	0.5	200	±	1.0	8 piece joined
27	±	0.7	17	±	0.5	200	±	1.0	8 piece joined
28	±	0.8	14	±	0.5	200	±	1.0	8 piece joined
30	±	0.8	10	±	0.4	200	±	1.0	8 piece joined
30	±	0.8	10	±	0.4	200	±	1.0	8 piece joined
30	±	0.8	15	±	0.5	200	±	1.0	8 piece joined
30	±	0.8	22	±	0.8	200	±	1.0	8 piece joined
46	±	1.5	23	±	0.8	200	±	1.0	8 piece joined
52	±	1.5	26	±	0.8	200	±	1.0	8 piece joined
55	±	1.5	27	±	0.8	200	±	1.0	8 piece joined
65	±	1.5	32	±	0.8	200	±	1.0	8 piece joined

MRF Type (Solid Flat Sided Rod)



OD			Length			Type of construction
3	±	0.3	200	±	1.0	One piece
4	±	0.3	200	±	1.0	One piece
5	±	0.3	200	±	1.0	One piece
6	±	0.3	200	±	1.0	One piece
7	±	0.3	200	±	1.0	One piece
8	±	0.3	200	±	1.0	One piece
9	±	0.3	200	±	1.0	One piece
10	±	0.4	200	±	1.0	One piece
11	±	0.4	200	±	1.0	One piece
12	±	0.4	200	±	1.0	One piece
13	±	0.4	200	±	1.0	One piece
14	±	0.4	200	±	1.0	One piece
15	±	0.5	200	±	1.0	One piece
16	±	0.5	200	±	1.0	One piece
17	±	0.6	200	±	1.0	One piece
18	±	0.6	200	±	1.0	One piece
20	±	0.6	200	±	1.0	One piece
22	±	0.7	200	±	1.0	One piece
27	±	0.7	200	±	1.0	One piece

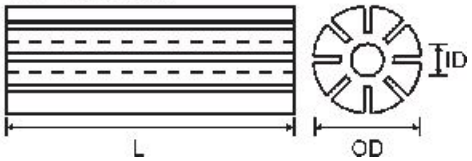
MRS Type (Solid Fluted Rod)



OD			Length			No of Slots	Type of Construction
3	±	0.3	200	±	1.0	6	One piece
4	±	0.3	200	±	1.0	6	One piece
5	±	0.3	200	±	1.0	6	One piece
6	±	0.3	200	±	1.0	6	One piece
6.5	±	0.7	200	±	1.0	6	One piece
7	±	0.3	200	±	1.0	6	One piece
7.5	±	0.3	200	±	1.0	6	One piece
8	±	0.3	200	±	1.0	6	One piece
8.5	±	0.3	200	±	1.0	6	One piece
9	±	0.3	200	±	1.0	6	One piece
10	±	0.4	200	±	1.0	6	One piece
11	±	0.4	200	±	1.0	8	One piece
12	±	0.4	200	±	1.0	8	One piece
12.7	±	0.4	200	±	1.0	8	One piece
13	±	0.4	200	±	1.0	8	One piece
14	±	0.4	200	±	1.0	8	One piece
15	±	0.5	200	±	1.0	8	One piece
16	±	0.5	200	±	1.0	8	One piece
17	±	0.6	200	±	1.0	8	One piece
18	±	0.6	200	±	1.0	8	One piece
19	±	0.6	200	±	1.0	8	One piece
20	±	0.6	200	±	1.0	8	One piece
21	±	0.6	200	±	1.0	8	One piece
22	±	0.65	200	±	1.0	8	One piece
23	±	0.65	200	±	1.0	8	8 piece joined
24	±	0.65	200	±	1.0	8	8 piece joined
25	±	0.65	200	±	1.0	8	8 piece joined
26	±	0.7	200	±	1.0	8	8 piece joined
27	±	0.7	200	±	1.0	8	8 piece joined
28	±	0.8	200	±	1.0	8	8 piece joined
29	±	0.8	200	±	1.0	8	8 piece joined
30	±	1.0	200	±	1.0	8	8 piece joined
32	±	1.0	200	±	1.0	8	8 piece joined

MRSH Type (Hollow Fluted Rod)

TYPE 5 MRSH



MRSH type (Hollow Fluted type)

OD			ID			Length			No of Slots	Type of construction
6	±	0.3	2	±	0.3	200	±	1	6	One piece
6	±	0.3	3	±	0.3	200	±	1	6	One piece
7	±	0.3	2	±	0.3	200	±	1	6	One piece
7	±	0.3	3	±	0.3	200	±	1	6	One piece
7	±	0.3	4	±	0.3	200	±	1	6	One piece
8	±	0.3	2	±	0.3	200	±	1	6	One piece
8	±	0.3	3	±	0.3	200	±	1	6	One piece
8	±	0.3	4	±	0.3	200	±	1	6	One piece
9	±	0.4	2	±	0.3	200	±	1	6	One piece
9	±	0.4	3	±	0.3	200	±	1	6	One piece
9	±	0.4	4	±	0.3	200	±	1	6	One piece
9	±	0.4	5	±	0.3	200	±	1	6	One piece
10	±	0.4	3	±	0.3	200	±	1	8	One piece
10	±	0.4	4	±	0.3	200	±	1	8	One piece
10	±	0.4	5	±	0.3	200	±	1	8	One piece
10	±	0.4	6	±	0.3	200	±	1	8	One piece
11	±	0.4	3	±	0.3	200	±	1	8	One piece
11	±	0.4	4	±	0.3	200	±	1	8	One piece
11	±	0.4	5	±	0.3	200	±	1	8	One piece
12	±	0.4	2	±	0.3	200	±	1	8	One piece
12	±	0.4	3	±	0.3	200	±	1	8	One piece
12	±	0.4	5	±	0.3	200	±	1	8	One piece
12	±	0.4	6	±	0.3	200	±	1	8	One piece
12	±	0.4	7	±	0.4	200	±	1	8	One piece
13	±	0.4	2	±	0.3	200	±	1	8	One piece
13	±	0.4	3	±	0.3	200	±	1	8	One piece
13	±	0.4	4	±	0.3	200	±	1	8	One piece
13	±	0.4	5	±	0.3	200	±	1	8	One piece
13	±	0.4	6	±	0.3	200	±	1	8	One piece
13	±	0.4	7	±	0.4	200	±	1	8	One piece
14	±	0.4	3	±	0.3	200	±	1	8	One piece
14	±	0.4	4	±	0.3	200	±	1	8	One piece
14	±	0.4	5	±	0.3	200	±	1	8	One piece
14	±	0.4	6	±	0.3	200	±	1	8	One piece
14	±	0.4	7	±	0.4	200	±	1	8	One piece
15	±	0.5	3	±	0.3	200	±	1	8	One piece
15	±	0.5	4	±	0.3	200	±	1	8	One piece
15	±	0.5	5	±	0.3	200	±	1	8	One piece
15	±	0.5	6	±	0.3	200	±	1	8	One piece
15	±	0.5	7	±	0.4	200	±	1	8	One piece
15	±	0.5	9	±	0.4	200	±	1	8	One piece

MRSH Type (Hollow Fluted Rod)

OD			ID			Length			No of Slots	Type of construction
16	±	0.5	3	±	0.3	200	±	1	8	One piece
16	±	0.5	4	±	0.3	200	±	1	8	One piece
16	±	0.5	5	±	0.3	200	±	1	8	One piece
16	±	0.5	5	±	0.3	200	±	1	8	One piece
16	±	0.5	6	±	0.4	200	±	1	8	One piece
16	±	0.5	7	±	0.4	200	±	1	8	One piece
16	±	0.5	8	±	0.4	200	±	1	8	One piece
17	±	0.6	3	±	0.3	200	±	1	8	One piece
17	±	0.6	4	±	0.3	200	±	1	8	One piece
17	±	0.6	5	±	0.3	200	±	1	8	One piece
17	±	0.6	7	±	0.4	200	±	1	8	One piece
17	±	0.6	8	±	0.4	200	±	1	8	One piece
18	±	0.6	3	±	0.3	200	±	1	8	One piece
18	±	0.6	5	±	0.3	200	±	1	8	One piece
18	±	0.6	6	±	0.3	200	±	1	8	One piece
18	±	0.6	8	±	0.4	200	±	1	8	One piece
18	±	0.6	9	±	0.4	200	±	1	8	One piece
19	±	0.6	3	±	0.3	200	±	1	8	One piece
19	±	0.6	6	±	0.3	200	±	1	8	One piece
19	±	0.6	8	±	0.4	200	±	1	8	One piece
19	±	0.6	9	±	0.4	200	±	1	8	One piece
19	±	0.6	11	±	0.4	200	±	1	8	One piece
20	±	0.6	3	±	0.3	200	±	1	8	One piece
20	±	0.6	6	±	0.3	200	±	1	8	One piece
20	±	0.6	10	±	0.4	200	±	1	8	One piece
20	±	0.6	11	±	0.4	200	±	1	8	One piece
21	±	0.6	3	±	0.3	200	±	1	8	One piece
21	±	0.6	4	±	0.3	200	±	1	8	One piece
21	±	0.6	6	±	0.3	200	±	1	8	One piece
21	±	0.6	10	±	0.4	200	±	1	8	One piece
22	±	0.7	3	±	0.3	200	±	1	8	One piece
22	±	0.7	6	±	0.3	200	±	1	8	One piece
22	±	0.7	8	±	0.4	200	±	1	8	One piece
22	±	0.7	9	±	0.4	200	±	1	8	One piece
22	±	0.7	14	±	0.5	200	±	1	8	One piece
23	±	0.7	2	±	0.2	200	±	1	8	One piece
18.5	±	0.6	11	±	0.4	200	±	1	8	8 piece joined
20	±	0.6	3	±	0.3	200	±	1	8	8 piece joined
20	±	0.5	6	±	0.3	200	±	1	8	8 piece joined
21	±	0.6	3	±	0.3	200	±	1	8	8 piece joined
21	±	0.6	10	±	0.4	200	±	1	8	8 piece joined
21	±	0.6	10.5	±	0.4	200	±	1	8	8 piece joined
21	±	0.5	13	±	0.5	200	±	1	8	8 piece joined
21	±	0.5	14	±	0.5	200	±	1	8	8 piece joined
22	±	0.65	3	±	0.3	200	±	1	8	8 piece joined
22	±	0.65	6	±	0.3	200	±	0.5	8	8 piece joined
22	±	0.65	10	±	0.4	200	±	1	8	8 piece joined
22	±	0.65	11	±	0.4	200	±	1	8	8 piece joined
22	±	0.7	14	±	0.5	200	±	1	8	8 piece joined

MRSH Type (Hollow Fluted Rod)

OD			ID			Length			No of Slots	Type of construction
23	±	0.7	3	±	0.3	200	±	1	8	8 piece joined
23	±	0.5	6	±	0.3	200	±	1	8	8 piece joined
23	±	0.7	11	±	0.4	200	±	1	8	8 piece joined
23	±	0.7	11.5	±	0.4	200	±	1	8	8 piece joined
23	±	0.5	13	±	0.5	200	±	1	8	8 piece joined
24	±	0.7	3	±	0.3	200	±	1	8	8 piece joined
24	±	0.7	6	±	0.3	200	±	1	8	8 piece joined
24	±	0.7	8	±	0.4	200	±	1	8	8 piece joined
24	±	0.7	10	±	0.4	200	±	1	8	8 piece joined
24	±	0.7	12	±	0.5	200	±	1	8	8 piece joined
24	±	0.7	13	±	0.5	200	±	1	8	8 piece joined
25	±	0.7	3	±	0.3	200	±	1	8	8 piece joined
25	±	0.7	6	±	0.3	200	±	1	8	8 piece joined
25	±	0.7	10	±	0.4	200	±	1	8	8 piece joined
25	±	0.7	12	±	0.5	200	±	1	8	8 piece joined
26	±	0.7	3	±	0.3	200	±	1	8	8 piece joined
26	±	0.7	6	±	0.3	200	±	1	8	8 piece joined
26	±	0.7	13	±	0.5	200	±	1	8	8 piece joined
26	±	0.7	16	±	0.5	200	±	1	8	8 piece joined
27	±	0.7	3	±	0.3	200	±	1	8	8 piece joined
27	±	0.7	6	±	0.3	200	±	1	8	8 piece joined
27	±	0.5	8	±	0.4	200	±	1	8	8 piece joined
27	±	0.7	11	±	0.4	200	±	1	8	8 piece joined
27	±	0.7	13	±	0.5	200	±	1	8	8 piece joined
27	±	0.7	14	±	0.5	200	±	1	8	8 piece joined
28	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
28	±	0.8	10	±	0.4	200	±	1	8	8 piece joined
28	±	0.8	14	±	0.5	200	±	1	8	8 piece joined
29	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
29	±	0.8	10	±	0.4	200	±	1	8	8 piece joined
29	±	0.8	14	±	0.5	200	±	1	8	8 piece joined
30	±	0.8	3	±	0.3	200	±	1	8	8 piece joined
30	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
30	±	0.8	10	±	0.4	200	±	1	8	8 piece joined
30	±	0.8	12	±	0.5	200	±	0.5	8	8 piece joined
30	±	0.8	14	±	0.5	200	±	1	8	8 piece joined
30	±	0.8	15	±	0.5	200	±	1	8	8 piece joined
31	±	0.8	3	±	0.3	200	±	1	8	8 piece joined
31	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
31	±	0.8	10	±	0.4	200	±	1	8	8 piece joined
32	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
32	±	0.8	10	±	0.4	200	±	1	8	8 piece joined
32	±	0.8	12	±	0.5	200	±	1	8	8 piece joined
32	±	0.8	16	±	0.5	200	±	1	8	8 piece joined
33	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
33	±	0.8	10	±	0.4	200	±	1	8	8 piece joined
33	±	0.8	14	±	0.5	200	±	1	8	8 piece joined
33	±	0.8	15	±	0.5	200	±	1	8	8 piece joined

MRSH Type (Hollow Fluted Rod)

OD			ID			Length			No of Slots	Type of construction
34	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
34	±	0.8	12	±	0.5	200	±	1	8	8 piece joined
34	±	0.8	17	±	0.5	200	±	1	8	8 piece joined
34	±	0.8	20	±	0.6	200	±	1	8	8 piece joined
35	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
35	±	0.8	15	±	0.5	200	±	0.5	8	8 piece joined
35	±	0.8	17	±	0.5	200	±	1	8	8 piece joined
36	±	0.8	3	±	0.3	200	±	1	8	8 piece joined
36	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
36	±	0.8	18	±	0.5	200	±	1	8	8 piece joined
37	±	0.8	3	±	0.3	200	±	1	8	8 piece joined
37	±	0.8	15	±	0.5	200	±	1	8	8 piece joined
37	±	0.8	18	±	0.5	200	±	1	8	8 piece joined
38	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
38	±	0.8	12	±	0.5	200	±	1	8	8 piece joined
38	±	0.8	19	±	0.5	200	±	1	8	8 piece joined
39	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
39	±	0.8	12	±	0.5	200	±	1	8	8 piece joined
39	±	0.8	19	±	0.5	200	±	1	8	8 piece joined
39	±	0.8	20	±	0.6	200	±	1	8	8 piece joined
40	±	0.8	6	±	0.3	200	±	1	8	8 piece joined
40	±	0.8	12	±	0.5	200	±	1	8	8 piece joined
40	±	1.2	20	±	0.6	200	±	1	8	8 piece joined
42	±	1.2	6	±	0.3	200	±	1	8	8 piece joined
42	±	0.8	18	±	0.5	200	±	1	8	8 piece joined
42	±	1.2	20	±	0.6	200	±	0.5	8	8 piece joined
42	±	1.2	21	±	0.8	200	±	1	8	8 piece joined
43	±	1.2	22	±	0.8	200	±	1	8	8 piece joined
44	±	1.2	6	±	0.3	200	±	1	8	8 piece joined
44	±	1.2	22	±	0.8	200	±	1	8	8 piece joined
45	±	1.2	20	±	0.6	200	±	3	8	8 piece joined
46	±	1.2	18	±	0.5	200	±	1	8	8 piece joined
46	±	1.2	23	±	0.8	200	±	1	8	8 piece joined
48	±	1.2	20	±	0.6	200	±	1	8	8 piece joined
48	±	1.2	24	±	0.8	200	±	1	8	8 piece joined
50	±	1.2	25	±	0.8	200	±	1	8	8 piece joined
51	±	1.2	26	±	0.8	200	±	1	8	8 piece joined
54	±	1.2	6	±	0.3	200	±	1	8	8 piece joined
55	±	1.2	6	±	0.3	200	±	1	8	8 piece joined
55	±	1.2	20	±	0.6	200	±	0.5	8	8 piece joined
55	±	1.2	25	±	0.8	200	±	1	8	8 piece joined
55	±	1.2	27	±	0.8	200	±	1	8	8 piece joined
56	±	1.2	28	±	0.8	200	±	1	8	8 piece joined
57	±	1.2	29	±	0.8	200	±	1	8	8 piece joined
58	±	1.2	29	±	0.8	200	±	1	8	8 piece joined
60	±	1.2	30	±	0.8	200	±	1	8	8 piece joined
62	±	1.2	31	±	0.8	200	±	1	8	8 piece joined
65	±	1.2	32	±	0.8	200	±	1	8	8 piece joined
70	±	1.2	35	±	0.8	200	±	1	8	8 piece joined

MRSH Type (Hollow Fluted Rod)

OD			ID			Length			No of Slots	Type of construction
73	±	1.2	36	±	1.0	200	±	1	8	8 piece joined
75	±	1.2	35	±	0.8	200	±	1	8	8 piece joined
80	±	1.2	40	±	1.0	200	±	1	8	8 piece joined
85	±	1.2	42	±	1.0	200	±	1	8	8 piece joined
85	±	1.2	42	±	1.0	200	±	1	8	8 piece joined
90	±	1.2	45	±	1.0	200	±	1	8	8 piece joined
95	±	1.2	48	±	1.0	200	±	1	8	8 piece joined
100	±	1.2	50	±	1.0	200	±	1	8	8 piece joined
102	±	1.2	52	±	1.0	200	±	1	8	8 piece joined

Mahindra hinoday

Mahindra Hinoday Industries Limited
Bhosari Industrial Estate, Pune - 411026, INDIA.
Telephone - 020 - 27120812
Fax - 020 - 27128592
Email - marketing@hinodaynet.com
Website - www.hinodaynet.com