

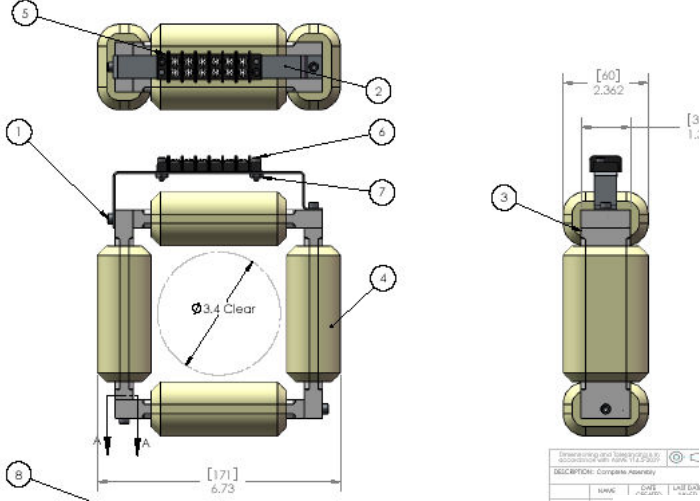
Summary of Magnets for NML

type	# ordered	vendor	int. field max	coil extent in z [mm]	I _{max} [A]	V _{max} [V]
gun solenoid	2 (+ spare coil)	Danfysik	630 G-m (0.28T peak)	130	500	40
LE corr.	33	Radiabeam	12.3 G-m	60	7.5	1.2
LE dipole	14	Everson-Tesla	720 G-m	300	8	40
LE quad	37	Radiabeam	1.1 T-m/m	160	9	12
HE corr.	34	Everson-Tesla	200 G-m	200	9.2	13.4
HE dipole	4	FNAL + tbd	15,000 G-m	1500	1100	14
HE quad	34	Everson-Tesla	8 T-m/m	500	60	45

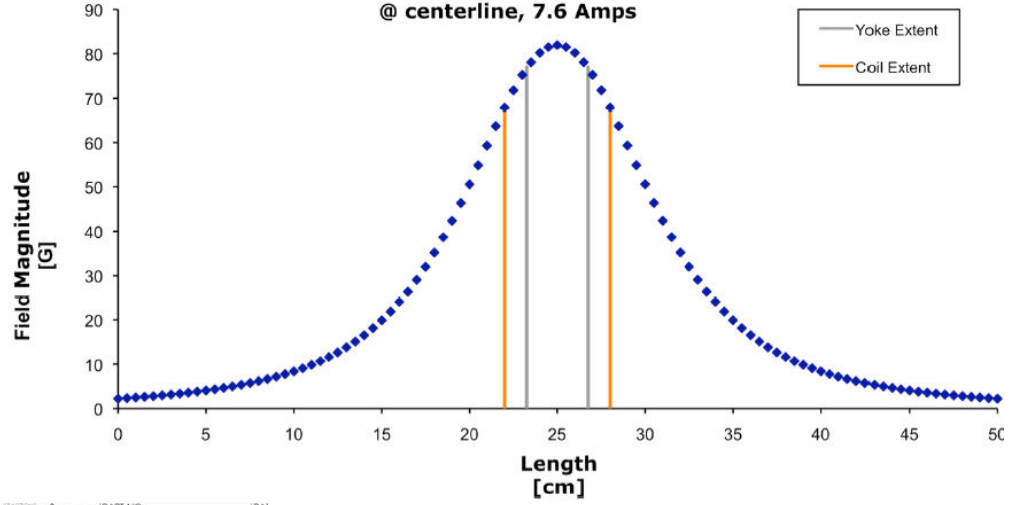
- See D Broemmelsiek's update on solenoids
- For other magnets, 1st magnets will arrive in ~ 3 months; final magnets will arrive in ~15 months
- Contract for HE dipole to be awarded after technical review later today
- All magnets split in 2 halves for insertion of vacuum pipe and easy moving

Low Energy Correctors

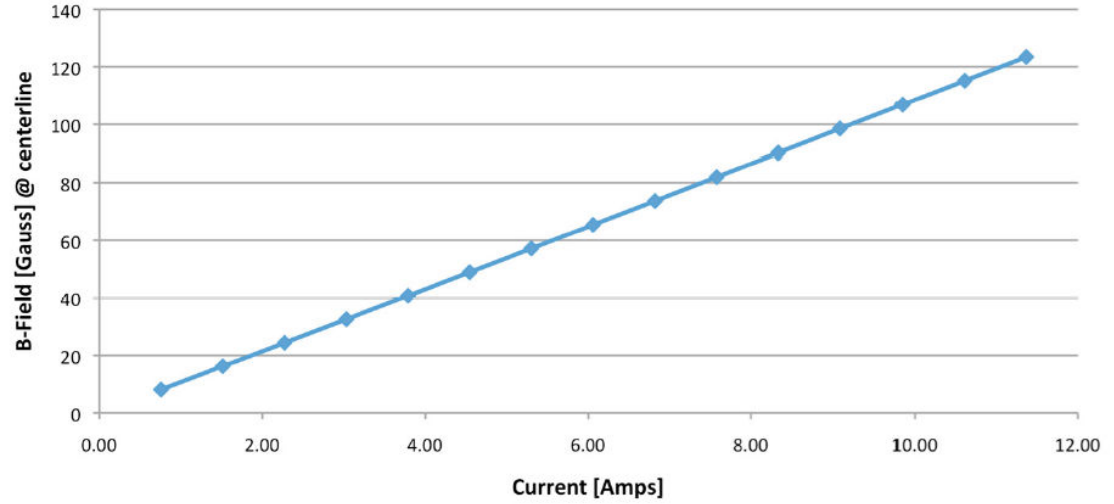
Part No.	Part Name	Part Description	Part Category	Part Manufacturer	Part Material	Part Qty
1B1130	Main Tube	AMS-C-207A Class 1 Grade B	Radiobeam Technologies	None	None	1
45138	Coil	AMS-C-207A Class 1 Grade B	Radiobeam Technologies	CuTiFe-34C1.38	None	4
5726	al final assembly (100%)	Brass, Phosphor	None	7520146	None	1
5A148	316L A-321 U.L.F. Tube	316LSS	None	92123A148	None	2
57602P	Welding Nut #30	316SS	None	92257A02P	None	2
5A143	PORT Connect (100%) 3/8" x 3/8" 316SS	316SS	None	92354A143	None	2



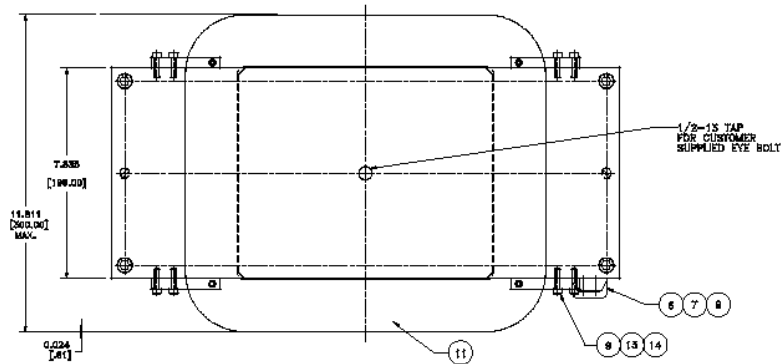
**NML Corrector Dipole
Longitudinal Field Profile
@ centerline, 7.6 Amps**



- air cooled
- each magnet has V and H independent corrector
- fits around CF3.7 flange
- final design approval soon
- will give up to 9 mrad kick at 40 MeV (equiv. to 1 mm offset of full strength quad)
- 16 lbs



Low Energy Dipoles



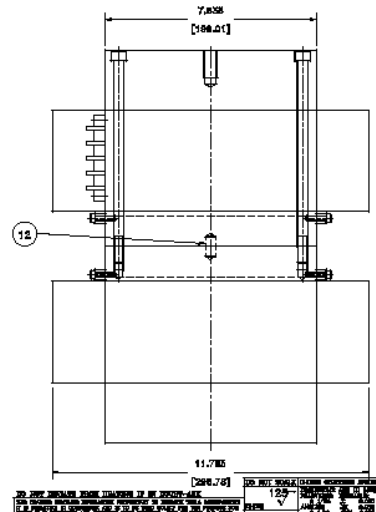
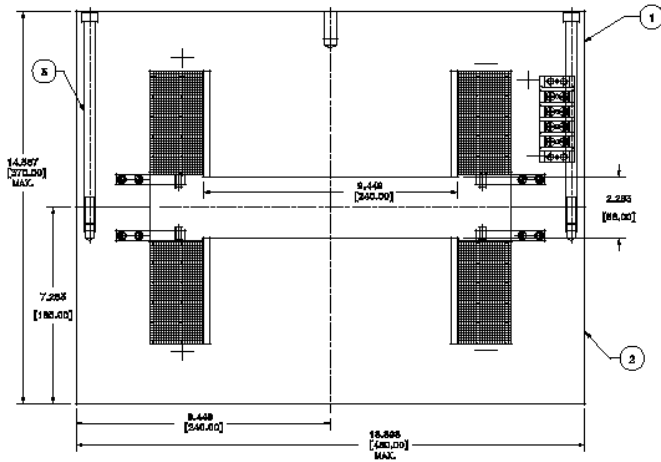
NOTE:

1. NO M
2. FIDUC
3. PAINT

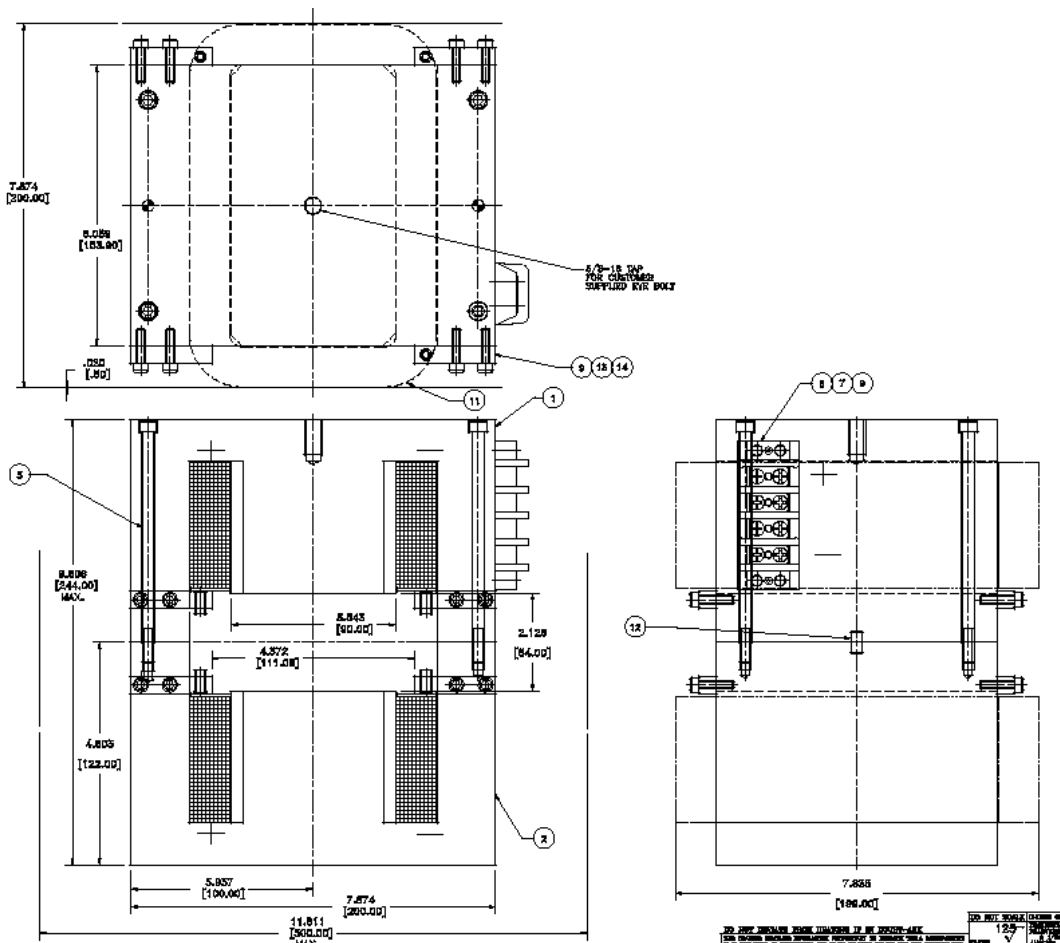
MAGNE

1. POLE
2. TRANS
3. FIELD
4. CENTR
5. COIL
6. MAGN

- air cooled
- standard picture frame magnet, similar to NDA
- intended for 22.5 deg bend at 40 MeV (chicanes, bends, dumps, ...)
- design approved; first magnet in production
- 620 lbs
- field drops to < 2% of peak field 30 cm from center

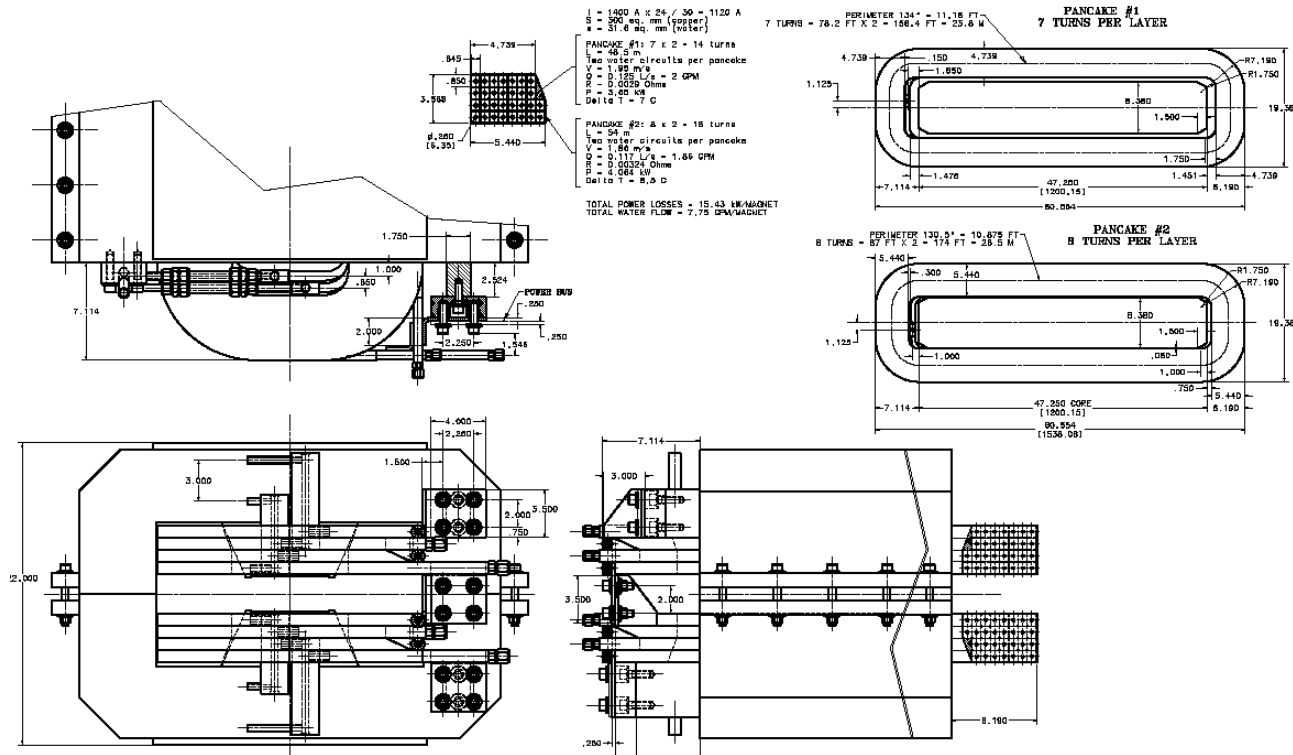


High Energy Correctors



- air cooled
- will give up to 6 mrad kick at 1 GeV (equiv. to 2.5 mm offset of full strength quad)
- design approved; first magnet in production
- 125 lbs
- standard picture frame dipole
- intended for vertical and horizontal orientation

High Energy Dipoles



- water cooled (up to 7.7 GPM)
- intended for 15 deg bend at up to 1.5 GeV
- vendor selection later today
- ~8000 lbs
- hybrid – FNAL will stack cores from old MI laminations and send to vendor with old MI copper conductor for coil winding and assembly into magnet

