NEXT-ANGEL Engineering Issues

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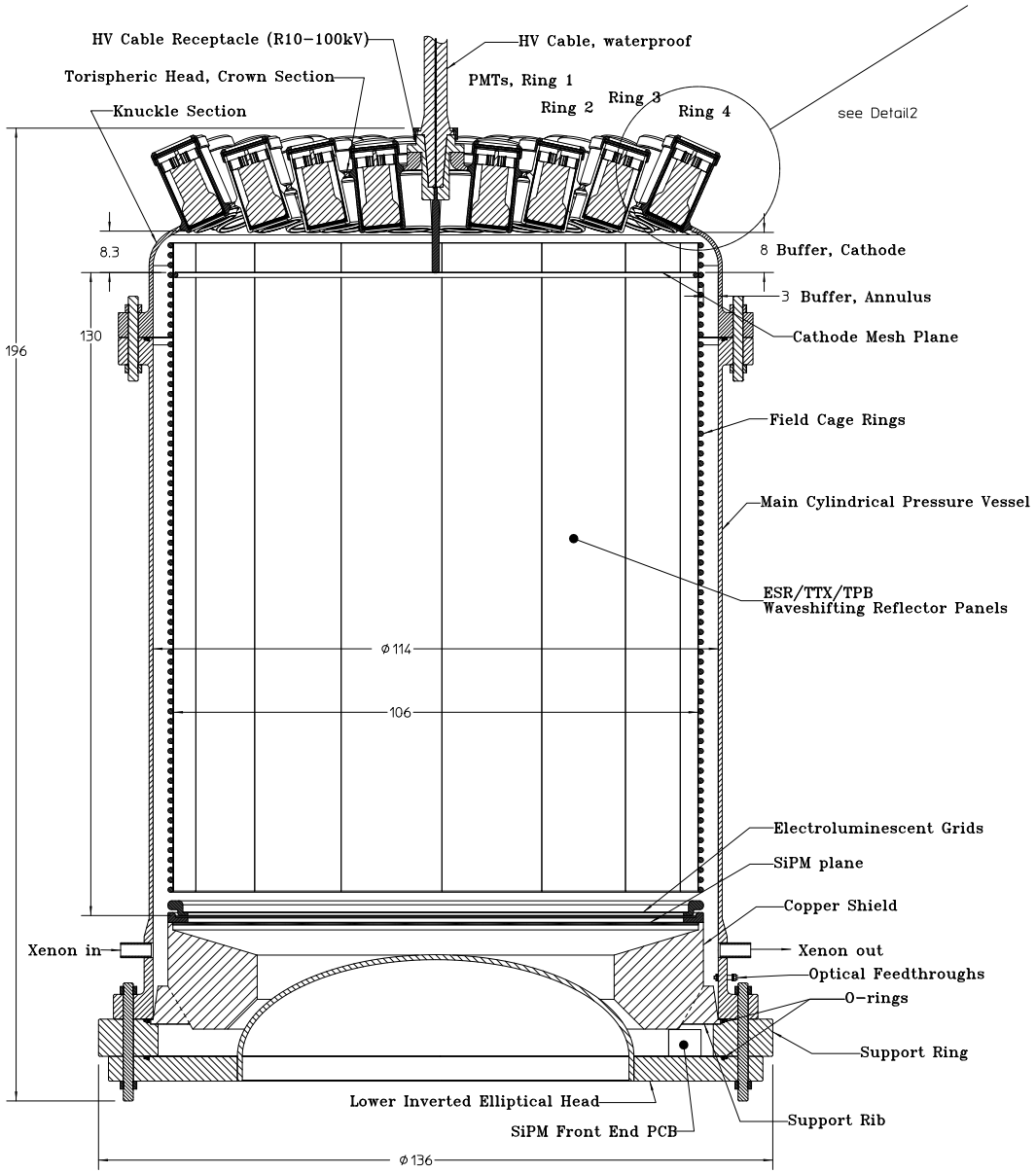
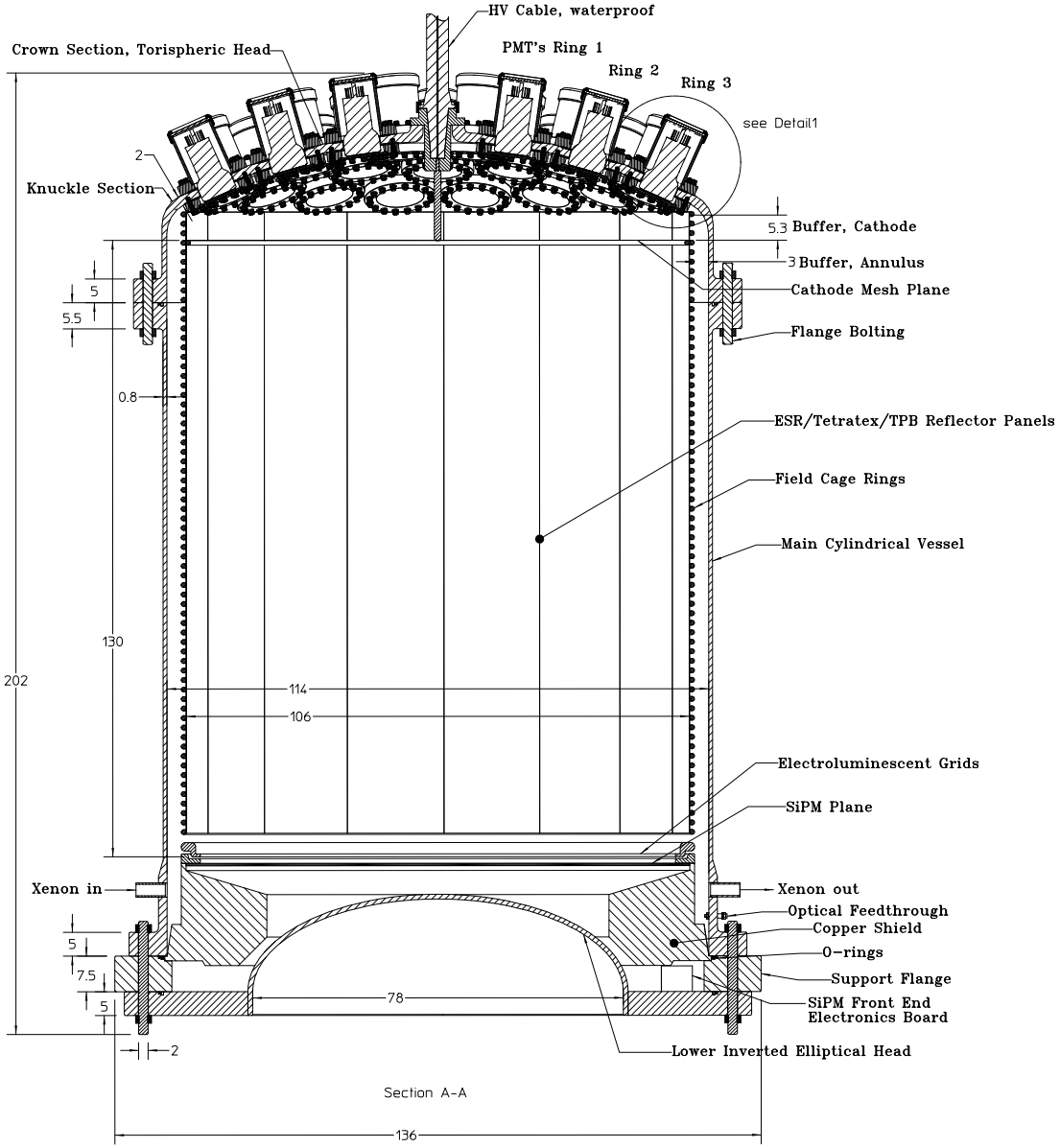
Outline

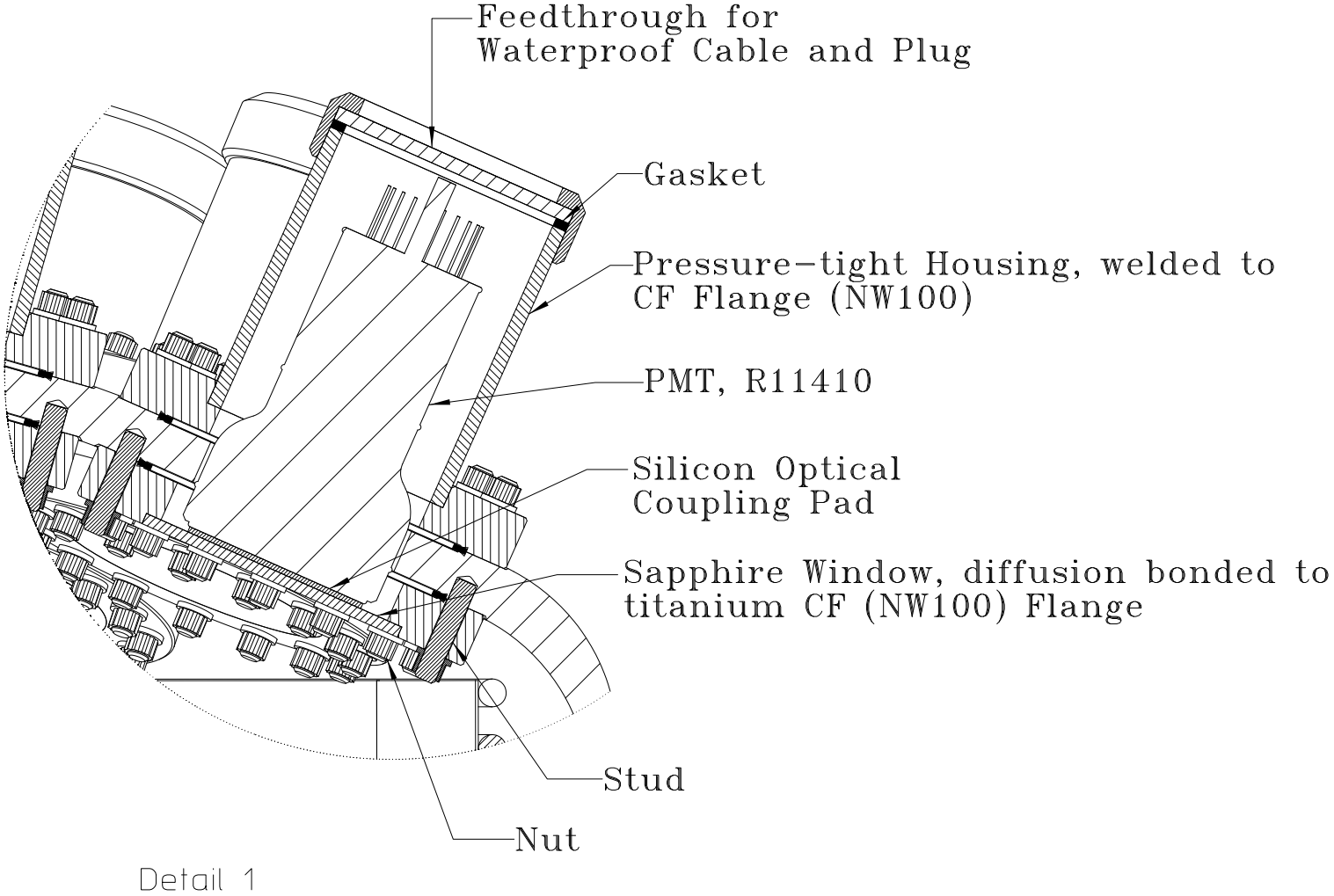
NEXT 100 ANGEL EASY/SOFT 60 PMT Option (25% coverage)



NEXT 100 ANGEL EASY/SOFT 36PMT Option (15% coverage)



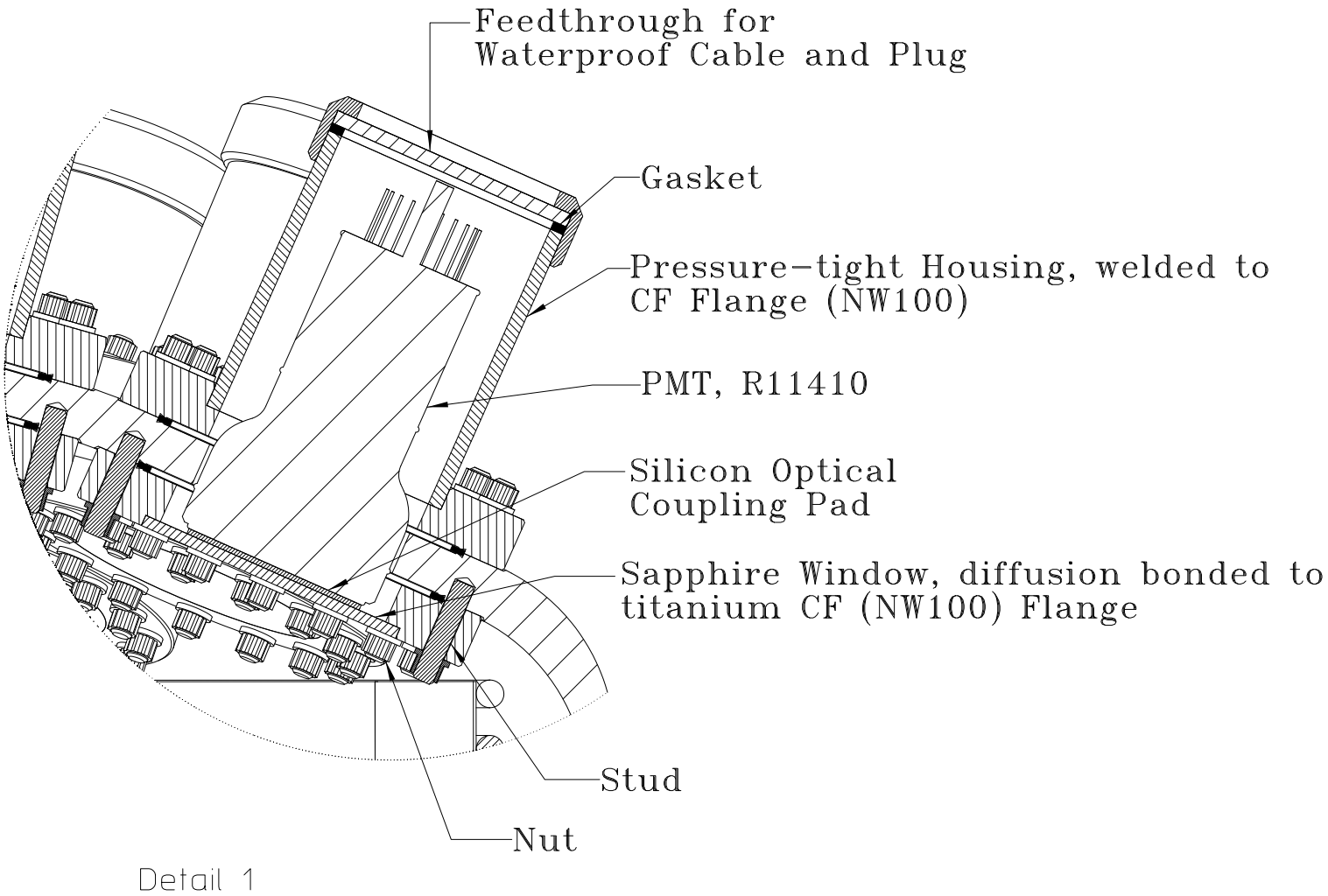
ANGEL Detail Cross Section, 36 PMT Option



Parameters, @15 bar

EL region, E/p	3	kV/(cm*bar)	E=	$0.6*10^7$	V/m
EL gap	5	mm			
EL voltage, V_{EL}	30	kV			
Drift region, E_D	0.5	kV/cm			
Drift length, l_D	1.3	m			
Cathode Voltage ($V_{EL}L+l_D*E_D$)	95	kV			
Annulus region, E/p	2	kV/(cm*bar)	E=	$0.3*10^7$	V/m
Cathode buffer region, E/p	2	kV/(cm*bar)	E=	$0.3*10^7$	V/m

Drift and EL Parameters

EL region, E/p	3	kV/(cm*bar)	E=	$0.6*10^7$	V/m
EL gap	5	mm			
EL voltage, V_{EL}	30	kV			
Drift region, E_D	0.5	kV/cm			
Drift length, l_D	1.3	m			
Cathode Voltage ($V_{EL}L+l_D*E_D$)	95	kV			
Annulus region, E/p	2	kV/(cm*bar)	E=	$0.3*10^7$	V/m
Cathode buffer region, E/p	2	kV/(cm*bar)	E=	$0.3*10^7$	V/m

Simple Toroid Design, (ArDM)