

Blue IP6 at store. No Coupling. Fill #16985

	Uncoupled	Tunes	Horiz	Vert	All	OptiCalc	BetaStar App	
$\alpha_x$	0.139	-0.015	0.424	0.867	0.394	-0.020	-0.112	-0.412
$\beta_x$	0.832	0.836	0.907	1.434	0.926	0.712	0.868	1.026
$\alpha_y$	-0.075	-0.067	-0.466	-0.121	0.321	-0.007	-0.177	-0.098
$\beta_y$	0.670	0.681	0.848	0.661	0.736	0.712	0.798	0.787
$C_{11}$	0.000	0.003	0.021	-0.004	0.019			
$C_{12}$	0.000	1.557	0.581	0.566	0.581			
$C_{21}$	0.000	0.007	-0.068	-0.068	-0.067			
$C_{22}$	0.000	0.037	-0.017	-0.043	-0.010			
$\Delta Q_{min}$	0.00000	0.00000	0.00094	0.00094	0.00094	0.00071*		
$\chi^2$	0.001695	0.00010	0.000008	0.000008	0.000007			

\* Measured  $\Delta Q_{min}$

Yellow IP6 at injection. No Coupling. Fill #16986

	Uncoupled	Tunes	Horiz	Vert	All	OptiCalc	BetaStar App	
$\alpha_x$	0.210	0.231	0.226	-0.158	0.144	-0.087	-0.230	-0.343
$\beta_x$	9.334	8.559	9.256	9.001	8.993	8.546	10.466	12.286
$\alpha_y$	-0.135	-0.176	-0.521	-0.158	-0.254	0.011	-0.206	0.006
$\beta_y$	11.355	10.004	13.271	11.214	11.273	9.277	15.943	37.046
$C_{11}$	0.000	-0.151	-0.083	-0.069	-0.083			
$C_{12}$	0.000	2.763	1.394	1.567	1.381			
$C_{21}$	0.000	-0.029	-0.006	-0.006	-0.006			
$C_{22}$	0.000	-0.015	0.003	0.014	-0.010			
$\Delta Q_{min}$	0.00000	0.00578	0.00199	0.00199	0.00200	0.00193*		
$\chi^2$	0.002245	0.008648	0.000005	0.000006	0.000003			

\* Measured  $\Delta Q_{min}$

Yellow IP6 at injection. [yi7-qs3] - 0.4. Fill #16986

	Uncoupled	Tunes	Horiz	Vert	All	OptiCalc	BetaStar App	
$\alpha_x$	0.114	0.151	0.234	0.557	0.257	-0.087	-0.652	-0.382
$\beta_x$	9.076	8.374	8.352	10.816	8.361	8.546	29.688	23.342
$\alpha_y$	0.029	0.001	-1.302	-0.179	-0.153	0.011	-0.288	-0.285
$\beta_y$	15.910	13.398	19.252	14.829	13.976	9.063	24.410	22.501
$C_{11}$	0.000	0.219	0.195	0.237	0.252			
$C_{12}$	0.000	-1.834	0.426	-2.941	-3.070			
$C_{21}$	0.000	0.015	0.002	0.005	0.004			
$C_{22}$	0.000	0.169	0.285	0.171	0.166			
$\Delta Q_{min}$	0.00000	0.00574	0.00534	0.00534	0.00535	0.00532*		
$\chi^2$	0.015784	0.000510	0.000042	0.000007	0.000005			

\* Measured  $\Delta Q_{min}$