

# rotork<sup>®</sup>

## Fluid Systems

CQP Series actuator

Torque Table (metric)



Date

15/12/2016

Revision

01

SPRING RETURN, FAIL TO CLOSE, PNEUMATIC ACTUATOR - Output Torque (Nm)

ACTUATOR MODEL	SPRING TORQUE			CYLINDER OUTPUT TORQUE @ INPUT PRESSURE																		MinOP (barg)	MOP (barg)	MAWP (barg)	DISPL (l)
	BTC	RTC	ETC	3,5 barg			4 barg			5 barg			5,5 barg			6 barg			7 barg						
				BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO	BTO	RTO	ETO				
CQP-010-300*/C1	951	542	745	-	-	-	-	-	-	966	502	637	1.151	630	811	1.335	752	985	1.704	991	1.333	4,1	7,3	12,0	6,8
CQP-010-320*/C1	951	542	745	-	-	-	797	385	478	1.217	674	874	1.427	811	1.071	1.637	947	1.269	-	-	-	3,7	6,4	12,0	7,7
CQP-010-350*/C1	951	542	745	870	435	546	1.121	610	783	1.623	938	1.257	-	-	-	-	-	-	-	-	-	3,3	5,4	12,0	9,2
CQP-020-350*/C1	1.936	1.003	1.435	-	-	-	-	-	-	1.960	923	1.281	2.325	1.159	1.634	2.690	1.391	1.986	3.421	1.837	2.691	4,1	7,4	12,0	12,8
CQP-020-385*/C1	1.936	1.003	1.435	-	-	-	1.841	847	1.166	2.725	1.412	2.019	3.167	1.683	2.446	3.609	1.950	2.872	-	-	-	3,6	6,1	12,0	15,5
CQP-020-400*/C1	1.936	1.003	1.435	1.640	717	973	2.118	1.025	1.433	3.072	1.625	2.354	3.549	1.914	2.815	-	-	-	-	-	-	3,4	5,7	12,0	16,8
CQP-030-385*/C1	3.024	1.557	2.259	-	-	-	-	-	-	3.116	1.435	1.992	3.692	1.800	2.539	4.268	2.165	3.086	5.420	2.864	4.181	4,1	7,2	12,0	19,8
CQP-030-435*/C1	3.024	1.557	2.259	2.499	1.044	1.405	3.234	1.510	2.104	4.705	2.433	3.501	5.440	2.876	4.200	-	-	-	-	-	-	3,4	5,7	12,0	25,3
CQP-030-450*/C1	3.024	1.557	2.259	2.855	1.270	1.744	3.642	1.768	2.491	5.215	2.741	3.986	-	-	-	-	-	-	-	-	-	3,3	5,3	12,0	27,1
CQP-040-435*/C1	4.954	2.598	3.775	-	-	-	-	-	-	4.770	2.181	3.009	5.683	2.762	3.876	6.597	3.342	4.743	8.424	4.459	6.476	4,2	7,3	12,0	31,5
CQP-040-485*/C1	4.954	2.598	3.775	-	-	-	4.697	2.135	2.940	6.968	3.575	5.095	8.104	4.266	6.173	-	-	-	-	-	-	3,6	5,9	12,0	39,2
CQP-040-500*/C1	4.954	2.598	3.775	4.054	1.727	2.330	5.261	2.493	3.475	7.674	4.006	5.765	8.881	4.734	6.910	-	-	-	-	-	-	3,4	5,6	12,0	41,6
CQP-050-485*/C1	7.550	3.926	5.637	-	-	-	-	-	-	7.733	3.653	4.951	9.160	4.536	6.309	10.586	5.404	7.667	13.439	7.119	10.383	4,1	7,2	12,0	49,1
CQP-050-520*/C1	7.550	3.926	5.637	-	-	-	6.566	2.904	3.839	9.845	4.955	6.961	11.485	5.947	8.522	13.124	6.931	10.084	-	-	-	3,7	6,3	12,0	56,4
CQP-050-560*/C1	7.550	3.926	5.637	6.772	3.038	4.035	8.673	4.237	5.845	12.476	6.543	9.467	-	-	-	-	-	-	-	-	-	3,3	5,4	12,0	65,4
CQP-060-585*/C1	10.871	5.656	8.181	-	-	-	-	-	-	11.238	5.226	7.220	13.292	6.534	9.168	15.346	7.838	11.117	19.454	10.334	15.013	4,1	7,2	12,0	70,8
CQP-060-635*/C1	10.871	5.656	8.181	-	-	-	10.086	4.493	6.127	14.926	7.574	10.718	17.346	9.062	13.013	19.766	10.521	15.309	-	-	-	3,6	6,1	12,0	83,4
CQP-060-685*/C1	10.871	5.656	8.181	10.423	4.707	6.447	13.239	6.500	9.118	18.871	9.983	14.460	-	-	-	-	-	-	-	-	-	3,3	5,3	12,0	97,0
CQP-070-685*/C1	14.956	7.890	11.254	-	-	-	-	-	-	15.487	7.278	9.957	18.303	9.089	12.628	21.119	10.897	15.299	26.751	14.358	20.642	4,1	7,3	12,0	97,6
CQP-070-735*/C1	14.956	7.890	11.254	-	-	-	13.246	5.837	7.832	19.731	10.007	13.983	22.973	12.049	17.058	26.216	14.032	20.133	-	-	-	3,7	6,3	12,0	112,4
CQP-070-785*/C1	14.956	7.890	11.254	13.179	5.794	7.768	16.877	8.172	11.276	24.274	12.848	18.292	27.972	15.098	21.800	-	-	-	-	-	-	3,4	5,5	12,0	128,2
CQP-080-785*/C1	21.846	10.736	15.220	-	-	-	-	-	-	21.109	9.686	13.123	24.934	12.215	16.881	28.759	14.744	20.640	36.410	19.726	28.157	4,2	7,3	12,0	135,1
CQP-080-835*/C1	21.846	10.736	15.220	-	-	-	17.461	7.275	9.538	26.117	12.997	18.043	30.445	15.858	22.296	34.773	18.686	26.548	-	-	-	3,8	6,4	12,0	152,8
CQP-080-885*/C1	21.846	10.736	15.220	-	-	-	21.710	10.084	13.714	31.434	16.512	23.268	36.296	19.653	28.045	-	-	-	-	-	-	3,5	5,7	12,0	171,7
CQP-090-937*/C1	36.028	17.389	23.455	-	-	-	-	-	-	35.688	15.198	20.712	41.901	19.212	26.817	48.114	23.226	32.921	60.541	31.252	45.131	4,2	7,1	12,0	217,2
CQP-090-940*/C1	36.028	17.389	23.455	-	-	-	30.004	11.525	15.128	44.125	20.648	29.001	51.185	25.210	35.938	58.246	29.771	42.875	-	-	-	3,9	6,3	12,0	246,8
CQP-090-942*/C1	36.028	17.389	23.455	-	-	-	35.484	15.066	20.512	50.982	25.078	35.738	58.731	30.084	43.352	-	-	-	-	-	-	3,6	5,7	12,0	270,9
CQP-100-942*/C1	46.066	24.860	34.270	-	-	-	-	-	-	47.488	23.177	30.797	56.096	28.928	39.038	64.705	34.680	47.279	81.923	45.821	63.760	4,1	7,3	12,0	303,0
CQP-100-945*/C1	46.066	24.860	34.270	-	-	-	36.641	15.930	20.415	55.460	28.503	38.429	64.869	34.789	47.435	74.278	40.941	56.442	-	-	-	3,8	6,7	12,0	331,1
CQP-100-962*/C1	46.066	24.860	34.270	39.116	17.584	22.784	50.233	25.011	33.426	72.467	39.776	54.708	83.584	46.876	65.349	-	-	-	-	-	-	3,4	5,7	12,0	391,2
CQP-110-960*/C1	60.036	31.979	44.674	-	-	-	-	-	-	61.890	30.217	40.150	73.111	37.714	50.891	84.332	45.210	61.632	106.774	59.735	83.114	4,1	7,3	12,0	394,2
CQP-110-965*/C1	60.036	31.979	44.674	-	-	-	55.218	25.759	33.763	81.556	43.356	58.975	94.725	52.033	71.581	107.894	60.447	84.186	-	-	-	3,6	6,2	12,0	462,6
CQP-110-972*/C1	60.036	31.979	44.674	56.734	26.772	35.215	72.007	36.976	49.834	102.554	57.048	79.074	-	-	-	-	-	-	-	-	-	3,3	5,3	12,0	536,5
CQP-120-965*/C1	79.179	41.043	59.471	-	-	-	-	-	-	82.462	38.493	53.108	97.344	47.983	67.230	112.226	57.473	81.352	141.990	75.914	109.595	4,1	7,3	12,0	506,0
CQP-120-972*/C1	79.179	41.043	59.471	-	-	-	71.671	31.611	42.869	106.191	53.624	75.624	123.450	64.555	92.002	140.710	75.134	108.380	-	-	-	3,7	6,3	12,0	586,9
CQP-120-980*/C1	79.179	41.043	59.471	72.237	31.972	43.405	92.050	44.607	62.206	131.677	69.620	99.808	-	-	-	-	-	-	-	-	-	3,3	5,5	12,0	673,7

BTO: Break To Open RTO: Run To Open ETO: End To Open  
 BTC: Break To Close RTC: Run To Close ETC: End To Close  
 MinOP: Minimum Operating Pressure  
 MOP: Maximum Operating Pressure  
 MAWP: Maximum Allowable Working Pressure  
 DISPL: Displacement

SPRING RETURN, FAIL TO OPEN, PNEUMATIC ACTUATOR - Output Torque (Nm)

ACTUATOR MODEL	SPRING TORQUE			CYLINDER OUTPUT TORQUE @ INPUT PRESSURE																		MinOP (barg)	MOP (barg)	MAWP (barg)	DISPL (l)
	BTO	RTO	ETO	3,5 barg			4 barg			5 barg			5,5 barg			6 barg			7 barg						
				BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC	BTC	RTC	ETC				
CQP-010-300*/O1	951	542	745	-	-	-	-	-	-	966	502	637	1.151	630	811	1.335	752	985	1.704	991	1.333	4,1	7,3	12,0	6,8
CQP-010-320*/O1	951	542	745	-	-	-	797	385	478	1.217	674	874	1.427	811	1.071	1.637	947	1.269	-	-	-	3,7	6,4	12,0	7,7
CQP-010-350*/O1	951	542	745	870	435	546	1.121	610	783	1.623	938	1.257	-	-	-	-	-	-	-	-	-	3,3	5,4	12,0	9,2
CQP-020-350*/O1	1.936	1.003	1.435	-	-	-	-	-	-	1.960	923	1.281	2.325	1.159	1.634	2.690	1.391	1.986	3.421	1.837	2.691	4,1	7,4	12,0	12,8
CQP-020-385*/O1	1.936	1.003	1.435	-	-	-	1.841	847	1.166	2.725	1.412	2.019	3.167	1.683	2.446	3.609	1.950	2.872	-	-	-	3,6	6,1	12,0	15,5
CQP-020-400*/O1	1.936	1.003	1.435	1.640	717	973	2.118	1.025	1.433	3.072	1.625	2.354	3.549	1.914	2.815	-	-	-	-	-	-	3,4	5,7	12,0	16,8
CQP-030-385*/O1	3.024	1.557	2.259	-	-	-	-	-	-	3.116	1.435	1.992	3.692	1.800	2.539	4.268	2.165	3.086	5.420	2.864	4.181	4,1	7,2	12,0	19,8
CQP-030-435*/O1	3.024	1.557	2.259	2.499	1.044	1.405	3.234	1.510	2.104	4.705	2.433	3.501	5.440	2.876	4.200	-	-	-	-	-	-	3,4	5,7	12,0	25,3
CQP-030-450*/O1	3.024	1.557	2.259	2.855	1.270	1.744	3.642	1.768	2.491	5.215	2.741	3.986	-	-	-	-	-	-	-	-	-	3,3	5,3	12,0	27,1
CQP-040-435*/O1	4.954	2.598	3.775	-	-	-	-	-	-	4.770	2.181	3.009	5.683	2.762	3.876	6.597	3.342	4.743	8.424	4.459	6.476	4,2	7,3	12,0	31,5
CQP-040-485*/O1	4.954	2.598	3.775	-	-	-	4.697	2.135	2.940	6.968	3.575	5.095	8.104	4.266	6.173	-	-	-	-	-	-	3,6	5,9	12,0	39,2
CQP-040-500*/O1	4.954	2.598	3.775	4.054	1.727	2.330	5.261	2.493	3.475	7.674	4.006	5.765	8.881	4.734	6.910	-	-	-	-	-	-	3,4	5,6	12,0	41,6
CQP-050-485*/O1	7.550	3.926	5.637	-	-	-	-	-	-	7.733	3.653	4.951	9.160	4.536	6.309	10.586	5.404	7.667	13.439	7.119	10.383	4,1	7,2	12,0	49,1
CQP-050-520*/O1	7.550	3.926	5.637	-	-	-	6.566	2.904	3.839	9.845	4.955	6.961	11.485	5.947	8.522	13.124	6.931	10.084	-	-	-	3,7	6,3	12,0	56,4
CQP-050-560*/O1	7.550	3.926	5.637	6.772	3.038	4.035	8.673	4.237	5.845	12.476	6.543	9.467	-	-	-	-	-	-	-	-	-	3,3	5,4	12,0	65,4
CQP-060-585*/O1	10.871	5.656	8.181	-	-	-	-	-	-	11.238	5.226	7.220	13.292	6.534	9.168	15.346	7.838	11.117	19.454	10.334	15.013	4,1	7,2	12,0	70,8
CQP-060-635*/O1	10.871	5.656	8.181	-	-	-	10.086	4.493	6.127	14.926	7.574	10.718	17.346	9.062	13.013	19.766	10.521	15.309	-	-	-	3,6	6,1	12,0	83,4
CQP-060-685*/O1	10.871	5.656	8.181	10.423	4.707	6.447	13.239	6.500	9.118	18.871	9.983	14.460	-	-	-	-	-	-	-	-	-	3,3	5,3	12,0	97,0
CQP-070-685*/O1	14.956	7.890	11.254	-	-	-	-	-	-	15.487	7.278	9.957	18.303	9.089	12.628	21.119	10.897	15.299	26.751	14.358	20.642	4,1	7,3	12,0	97,6
CQP-070-735*/O1	14.956	7.890	11.254	-	-	-	13.246	5.837	7.832	19.731	10.007	13.983	22.973	12.049	17.058	26.216	14.032	20.133	-	-	-	3,7	6,3	12,0	112,4
CQP-070-785*/O1	14.956	7.890	11.254	13.179	5.794	7.768	16.877	8.172	11.276	24.274	12.848	18.292	27.972	15.098	21.800	-	-	-	-	-	-	3,4	5,5	12,0	128,2
CQP-080-785*/O1	21.846	10.736	15.220	-	-	-	-	-	-	21.109	9.686	13.123	24.934	12.215	16.881	28.759	14.744	20.640	36.410	19.726	28.157	4,2	7,3	12,0	135,1
CQP-080-835*/O1	21.846	10.736	15.220	-	-	-	17.461	7.275	9.538	26.117	12.997	18.043	30.445	15.858	22.296	34.773	18.686	26.548	-	-	-	3,8	6,4	12,0	152,8
CQP-080-885*/O1	21.846	10.736	15.220	-	-	-	21.710	10.084	13.714	31.434	16.512	23.268	36.296	19.653	28.045	-	-	-	-	-	-	3,5	5,7	12,0	171,7
CQP-090-937*/O1	36.028	17.389	23.455	-	-	-	-	-	-	35.688	15.198	20.712	41.901	19.212	26.817	48.114	23.226	32.921	60.541	31.252	45.131	4,2	7,1	12,0	217,2
CQP-090-940*/O1	36.028	17.389	23.455	-	-	-	30.004	11.525	15.128	44.125	20.648	29.001	51.185	25.210	35.938	58.246	29.771	42.875	-	-	-	3,9	6,3	12,0	246,8
CQP-090-942*/O1	36.028	17.389	23.455	-	-	-	35.484	15.066	20.512	50.982	25.078	35.738	58.731	30.084	43.352	-	-	-	-	-	-	3,6	5,7	12,0	270,9
CQP-100-942*/O1	46.066	24.860	34.270	-	-	-	-	-	-	47.488	23.177	30.797	56.096	28.928	39.038	64.705	34.680	47.279	81.923	45.821	63.760	4,1	7,3	12,0	303,0
CQP-100-945*/O1	46.066	24.860	34.270	-	-	-	36.641	15.930	20.415	55.460	28.503	38.429	64.869	34.789	47.435	74.278	40.941	56.442	-	-	-	3,8	6,7	12,0	331,1
CQP-100-962*/O1	46.066	24.860	34.270	39.116	17.584	22.784	50.233	25.011	33.426	72.467	39.776	54.708	83.584	46.876	65.349	-	-	-	-	-	-	3,4	5,7	12,0	391,2
CQP-110-960*/O1	60.036	31.979	44.674	-	-	-	-	-	-	61.890	30.217	40.150	73.111	37.714	50.891	84.332	45.210	61.632	106.774	59.735	83.114	4,1	7,3	12,0	394,2
CQP-110-965*/O1	60.036	31.979	44.674	-	-	-	55.218	25.759	33.763	81.556	43.356	58.975	94.725	52.033	71.581	107.894	60.447	84.186	-	-	-	3,6	6,2	12,0	462,6
CQP-110-972*/O1	60.036	31.979	44.674	56.734	26.772	35.215	72.007	36.976	49.834	102.554	57.048	79.074	-	-	-	-	-	-	-	-	-	3,3	5,3	12,0	536,5
CQP-120-965*/O1	79.179	41.043	59.471	-	-	-	-	-	-	82.462	38.493	53.108	97.344	47.983	67.230	112.226	57.473	81.352	141.990	75.914	109.595	4,1	7,3	12,0	506,0
CQP-120-972*/O1	79.179	41.043	59.471	-	-	-	71.671	31.611	42.869	106.191	53.624	75.624	123.450	64.555	92.002	140.710	75.134	108.380	-	-	-	3,7	6,3	12,0	586,9
CQP-120-980*/O1	79.179	41.043	59.471	72.237	31.972	43.405	92.050	44.607	62.206	131.677	69.620	99.808	-	-	-	-	-	-	-	-	-	3,3	5,5	12,0	673,7

BTO: Break To Open RTO: Run To Open ETO: End To Open  
 BTC: Break To Close RTC: Run To Close ETC: End To Close  
 MinOP: Minimum Operating Pressure  
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ACTUATOR MODEL	CYLINDER OUTPUT TORQUE @ INPUT PRESSURE																		MinOP (barg)	MOP (barg)	MAWP (barg)	DISPL close (l)
	2,5 barg			3 barg			3,5 barg			4 barg			4,5 barg			5 barg						
	BTO/ETC	RTO/RTC	ETO/BTC	BTO/ETC	RTO/RTC	ETO/BTC	BTO/ETC	RTO/RTC	ETO/BTC	BTO/ETC	RTO/RTC	ETO/BTC	BTO/ETC	RTO/RTC	ETO/BTC	BTO/ETC	RTO/RTC	ETO/BTC				
CQP-010-300*/D1	896	570	846	1.081	688	1.020	1.265	805	1.194	1.450	922	1.368	1.634	1.040	1.542	-	-	-	1,0	5,0	12,0	21,5
CQP-010-320*/D1	1.020	649	962	1.230	782	1.160	1.439	916	1.358	1.649	1.049	1.556	-	-	-	-	-	-	1,0	4,4	12,0	25,3
CQP-010-350*/D1	1.220	776	1.151	1.471	936	1.388	1.722	1.096	1.625	-	-	-	-	-	-	-	-	-	1,0	3,7	12,0	31,5
CQP-020-350*/D1	1.776	1.056	1.713	2.141	1.273	2.066	2.506	1.490	2.418	2.872	1.707	2.771	3.237	1.925	3.123	3.603	2.142	3.476	1,0	5,1	12,0	40,0
CQP-020-385*/D1	2.157	1.283	2.081	2.600	1.545	2.508	3.042	1.808	2.934	3.484	2.071	3.361	-	-	-	-	-	-	1,0	4,2	12,0	50,6
CQP-020-400*/D1	2.329	1.385	2.247	2.806	1.668	2.707	3.283	1.952	3.168	-	-	-	-	-	-	-	-	-	1,0	3,9	12,0	55,5
CQP-030-385*/D1	2.810	1.651	2.670	3.386	1.989	3.218	3.962	2.328	3.765	4.538	2.666	4.312	5.113	3.004	4.859	5.689	3.343	5.407	1,0	5,0	12,0	59,0
CQP-030-435*/D1	3.602	2.116	3.423	4.337	2.548	4.122	5.072	2.980	4.820	-	-	-	-	-	-	-	-	-	1,0	3,9	12,0	80,2
CQP-030-450*/D1	3.855	2.265	3.663	4.641	2.727	4.411	5.428	3.189	5.159	-	-	-	-	-	-	-	-	-	1,0	3,7	12,0	87,1
CQP-040-435*/D1	4.476	2.638	4.247	5.390	3.177	5.114	6.303	3.715	5.980	7.217	4.253	6.847	8.130	4.792	7.714	-	-	-	1,0	5,0	12,0	87,5
CQP-040-485*/D1	5.564	3.279	5.279	6.700	3.949	6.357	7.835	4.618	7.434	8.971	5.287	8.512	-	-	-	-	-	-	1,0	4,0	12,0	115,7
CQP-040-500*/D1	5.914	3.485	5.611	7.121	4.197	6.756	8.327	4.908	7.901	-	-	-	-	-	-	-	-	-	1,0	3,8	12,0	124,8
CQP-050-485*/D1	6.989	4.119	6.655	8.416	4.960	8.013	9.842	5.800	9.371	11.268	6.641	10.729	12.695	7.482	12.087	14.121	8.322	13.445	1,0	5,0	12,0	141,4
CQP-050-520*/D1	8.034	4.735	7.650	9.674	5.702	9.211	11.314	6.668	10.772	12.953	7.634	12.333	-	-	-	-	-	-	1,0	4,4	12,0	169,0
CQP-050-560*/D1	9.356	5.514	8.908	11.258	6.635	10.719	13.159	7.756	12.529	-	-	-	-	-	-	-	-	-	1,0	3,8	12,0	202,9
CQP-060-585*/D1	10.147	5.983	9.624	12.201	7.194	11.572	14.255	8.405	13.520	16.309	9.616	15.469	18.362	10.827	17.417	-	-	-	1,0	5,0	12,0	207,9
CQP-060-635*/D1	12.004	7.078	11.385	14.424	8.505	13.681	16.844	9.932	15.976	19.264	11.359	18.272	-	-	-	-	-	-	1,0	4,2	12,0	256,9
CQP-060-685*/D1	13.968	8.236	13.249	16.785	9.897	15.920	19.601	11.557	18.591	-	-	-	-	-	-	-	-	-	1,0	3,6	12,0	310,0
CQP-070-685*/D1	13.968	8.324	13.249	16.785	10.002	15.920	19.601	11.680	18.591	22.417	13.358	21.263	25.233	15.036	23.934	28.049	16.714	26.605	1,0	5,0	12,0	319,3
CQP-070-735*/D1	16.082	9.583	15.254	19.324	11.515	18.329	22.567	13.447	21.404	25.809	15.379	24.480	-	-	-	-	-	-	1,0	4,4	12,0	378,9
CQP-070-785*/D1	18.344	10.931	17.400	22.043	13.135	20.908	25.741	15.339	24.416	-	-	-	-	-	-	-	-	-	1,0	3,8	12,0	442,7
CQP-080-785*/D1	18.973	11.497	18.642	22.799	13.814	22.400	26.624	16.132	26.159	30.449	18.450	29.917	34.274	20.768	33.676	38.100	23.086	37.434	1,0	5,1	12,0	467,8
CQP-080-835*/D1	21.467	13.008	21.092	25.795	15.630	25.345	30.123	18.253	29.597	34.452	20.875	33.850	-	-	-	-	-	-	1,0	4,5	12,0	541,6
CQP-080-885*/D1	24.115	14.612	23.694	28.977	17.558	28.471	33.839	20.504	33.248	-	-	-	-	-	-	-	-	-	1,0	4,0	12,0	619,9
CQP-090-937*/D1	30.819	18.427	30.279	37.032	22.142	36.384	43.245	25.857	42.488	49.459	29.572	48.593	55.672	33.287	54.697	61.886	37.002	60.802	1,0	5,0	12,0	818,7
CQP-090-940*/D1	35.020	20.939	34.407	42.081	25.160	41.344	49.141	29.382	48.281	56.202	33.603	55.218	-	-	-	-	-	-	1,0	4,4	12,0	946,1
CQP-090-942*/D1	38.435	22.980	37.762	46.184	27.614	45.375	53.933	32.247	52.988	61.682	36.880	60.602	-	-	-	-	-	-	1,0	4,0	12,0	1049,6
CQP-100-942*/D1	42.700	26.542	40.873	51.309	31.894	49.114	59.918	37.245	57.355	68.527	42.596	65.595	77.136	47.947	73.836	85.745	53.299	82.076	1,0	5,1	12,0	1200,9
CQP-100-945*/D1	46.670	29.010	44.674	56.080	34.859	53.680	65.489	40.708	62.687	74.898	46.557	71.694	84.308	52.405	80.701	-	-	-	1,0	4,6	12,0	1332,0
CQP-100-962*/D1	55.140	34.275	52.781	66.257	41.185	63.422	77.374	48.095	74.063	-	-	-	-	-	-	-	-	-	1,0	3,9	12,0	1591,9
CQP-110-960*/D1	55.657	34.568	53.275	66.878	41.538	64.016	78.099	48.507	74.757	89.320	55.477	85.498	100.541	62.446	96.239	111.762	69.416	106.980	1,0	5,1	12,0	1562,4
CQP-110-965*/D1	65.583	40.733	62.777	78.752	48.913	75.382	91.921	57.092	87.988	105.090	65.272	100.594	-	-	-	-	-	-	1,0	4,3	12,0	1860,8
CQP-110-972*/D1	76.060	47.241	72.806	91.333	56.727	87.426	106.607	66.213	102.045	-	-	-	-	-	-	-	-	-	1,0	3,7	12,0	2183,0
CQP-120-965*/D1	74.112	44.064	70.326	88.994	52.912	84.448	103.876	61.760	98.569	118.758	70.608	112.691	133.640	79.456	126.812	148.522	88.305	140.934	1,0	5,0	12,0	2005,9
CQP-120-972*/D1	85.953	51.104	81.561	103.212	61.365	97.939	120.472	71.627	114.317	137.731	81.889	130.695	-	-	-	-	-	-	1,0	4,3	12,0	2360,8
CQP-120-980*/D1	98.670	58.665	93.629	118.483	70.445	112.430	138.297	82.225	131.231	-	-	-	-	-	-	-	-	-	1,0	3,8	12,0	2741,4

BTO: Break To Open RTO: Run To Open ETO: End To Open  
 BTC: Break To Close RTC: Run To Close ETC: End To Close  
 MinOP: Minimum Operating Pressure  
 MOP: Maximum Operating Pressure  
 MAWP: Maximum Allowable Working Pressure  
 DISPL: Displacement