Burckhardt Compression

STANDARD HIGH-PRESSURE COMPRESSORS FOR HYDROGEN

HYDROGEN COMPRESSION WITH ZERO LEAKAGE

STANDARDISED SOLUTIONS

Hydrogen is used for various applications in different industries, such as refining, chemical products, fertilizers, metal treatment, food processing, mobility and energy.

Burckhardt Compression offers a wide range of lubricated Standard High-Pressure Compressors for compressing hydrogen up to 220 bar g, meeting the specific requirements of our customer's projects like bottling of hydrogen produced from chlor-alkali process, electrolyzer or methanol & natural gas reformer, hydrogen unloading and recovery as well as mobility.

CUSTOMER BENEFITS

- Gas-tight crankcase with mechanical seal for zero gas loss
- Completely skid-mounted solution with flexibility to adopt customer and country specific requirements (i.e. CE / PED, DOSH)
- Supplied with anti-vibration mounting pad for ease of installation on commercial foundation
- Air-cooled cylinders and gas coolers. No water cooling required
- Metallic rings carefully selected for hydrogen applications
- PLC-based control panel

Compressors for a Lifetime™

STANDARD HIGH-PRESSURE COMPRESSOR SOLUTIONS FOR HYDROGEN APPLICATIONS

TECHNICAL DATA – AMBIENT SUCTION PRESSURE

Type	Compressor Speed rpm	Motor Rating kW	Suction Pressure bar a	Capacity Nm3/hr	Shaft Power at Discharge Pressure kW		
					151 bar a	201 bar a	221 bar a
C5T223 GP	1 045	132	1.01	385	117	123	125
	1 045	150	1.1	420	124	130	132
	1 045	160	1.2	470	132	138	141
C5U217 GP	1 230	75	1.01	190	61	64	65
			1.10	210	64	67	70
	1 095	75	1.01	165	52	55	57
			1.10	185	56	59	61
	970	75	1.01	145	47	49	51
			1.10	160	49	52	54
	820	55	1.01	115	38	40	42
			1.10	130	41	43	45
	685	45	1.01	90	31	33	34
			1.10	105	33	35	36
C5C116 GP	1 365	45	1.01	85	31	33	34
			1.10	95	33	35	36
	1 215	37	1.01	75	29	29	30
			1.10	85	30	31	32
	1 015	30	1.01	60	23	24	25
			1.10	65	24	25	26
	850	30	1.01	50	19	20	21
			1.10	55	21	21	22
	680	22	1.01	35	15	16	16
			1.10	40	16	16	17

Typical performance range (+/- 5 % tolerance) of a Standard High-Pressure Compressor package for hydrogen applications based on suction gas temperature from 0 °C to 35 °C and ambient temperature from 0 °C to 35 °C. Certified calculation available on request.

Special solutions outside this range are also available.

TECHNICAL DATA – ELEVATED SUCTION PRESSURE

Type	Compressor Speed rpm	Motor Rating kW	Suction Pressure bar a	Capacity Nm3/hr	Shaft Power at Discharge Pressure kW		
					151 bar a	201 bar a	221 bar a
C3T210.3 GP	1 045	125	6	500	100	109	112
		150	8	680	116	126	131
		160	10	850	129	142	147
		180	12	1 020	142	157	-
		180	13	1 100	148	164	-
C3U207.2 GP	970	55	8	235	41	45	47
		75	10	290	46	51	53
			12	355	50	56	58
			14	410	54	60	63
			16	475	58	65	67
	820	45	8	195	34	37	38
		55	10	245	38	42	43
			12	295	41	46	48
		75	14	345	45	50	52
			16	395	48	54	56
	685	37	8	155	27	31	32
		45	10	200	31	34	35
			12	240	34	38	40
		55	14	280	36	41	43
			16	325	39	44	46

Typical performance range (+/- 5 % tolerance) of a Standard High-Pressure Compressor package for hydrogen applications based on suction gas temperature from 10 °C to 35 °C and ambient temperature from 0 °C to 35 °C. Certified calculation available on request.

Special solutions outside this range are also available.

Burckhardt Compression
info@burckhardtcompression.com
www.burckhardtcompression.com