

CENTRIFUGAL COMPRESSION MACHINES : The centrifugal compression machines (CCMs) are designed for compressing and moving air and other gases. The CCMs include turbocompression units, compressors, and blowers. The fields of the CCMs' use are shown in the Table below. The CCMs are electrically driven, automatically controlled, and stationary (foundation-mounted).

Type of CCM	Fluid compressed
Turbocompression units, compressors, and air blowers	Atmospheric air
Single-stage blowers of sulfur dioxide	Sulfur dioxide gas with SO ₂ content up to 7 percent
Double-stage blowers of sulfur dioxide	Sulfur dioxide gas with SO ₂ content up to 15 percent and concentration of sulfuric acid vapor up to 50 mg/m ³
Single-stage titanium blowers of humid sulfur dioxide	Sulfur dioxide gas with SO ₂ content up to 13 percent and 100 percent of relative humidity
Titanium blowers of steam-and-gas mix	The mix containing drop-and-steam phase of H ₂ O up to 60 percent, nitrogen (N ₂) up to 30 percent, carbon dioxide (CO ₂) up to 5 percent, oxygen (O ₂) up to 5 percent and concentration of hydrochloric acid (HCl) up to 300 mg/m ³
Coke gas blowers	Coke furnace gas of ferrous metallurgy plants

Type of CCM	Q, m ³ /min	Pk max, kPa(kgf/cm ²)	N, kW
TURBOCOMPRESSION UNITS (type TKA)			
TKA 80/9	58-80-86	883 (9.0)	380-530
TKA 130/9	95-130-140	883 (9.0)	560-780
TKA 250/9	170-260-276	883 (9.0)	880-1430
COMPRESSORS			
K 250-61-5	145-255	883 (9.0)	1000-1445
LTK 275/9	165-275	883 (9.0)	1135-1535
Type of CCM	Q, m ³ /min	Pk, kPa(kgf/cm ²)	N, kW
MULTI-STAGE AIR BLOWERS			
H 50-21-2	25-50-80	15-13-7(1510-1300-755)	9-15
LHB 200/3	166-200-226	307-294-268(3.13-3.00-2.73)	500-572
LHB 310/2.4 & 360-22-1	260-310-360	243-235-201(2.48-2.40-2.05)	575-722
LHB 375/1.8 & 360-21-1	300-375-450	186-176-154(1.90-1.80-1.57)	462-536
LHB 800/1.6	510-800-920	172-166-156(1.76-1.69-1.59)	690-1035
For H 50-21-2 in column Pk the values of pressure rise ΔP are given in kPa (mm H ₂ O)			
Type of CCM	Q, m ³ /min	ΔP, kPa(mmH ₂ O)	N, kW
SINGLE-STAGE AIR BLOWERS			
LHB 400/1.2 & 400-12-2	280-415-680	19.6-19.1-12.5(2000-1950-1275)	115-170
LHB 700/1.3 & 700-13-1	500-700-1080	30.5-29.9-21.3(3110-3050-2170)	310-470
LHB 1100/1.3 & 1050-13-1	640-1100-1400	32.4-29.4-20.8(3300-3000-2120)	420-610
SINGLE-STAGE SULFUR DIOXIDE BLOWERS			
LHC 400/1.2 & 400-12-2	280-425-680	18.6-18.2-12.0(1900-1860-1220)	110-168
LHC 700/1.3 & 700-13-1	500-700-1080	29.0-28.6-20.2(2960-2920-2060)	300-450
LHC 1100/1.3 & 1050-13-1	640-1100-1400	30.8-28.1-20.0(3140-2870-2040)	408-582
LHC 1850/1.3 & 31700-11-2M	1100-1850-2350	34.4-30.9-22.0(3510-3150-2240)	740-1090
MULTI-STAGE SULFUR DIOXIDE BLOWERS			
LHC 750/1.6	540-750-860	64.2-58.8-44.6(6550-6000-4550)	628-795
Type of CCM	Q, m ³ /hr	ΔP, kPa(mmH ₂ O)	N, kW
SINGLE-STAGE TITANIUM STEAM-AND-GAS MIX BLOWERS			
LHT 120/1.1	7100	9.8(1000)	25
LHT 360/1.1	21300	9.8(1000)	70
LHT 700/1.1	42600	9.8(1000)	140
Type of CCM	Q, m ³ /min	ΔP, kPa(mmH ₂ O)	N, kW
SINGLE-STAGE TITANIUM HUMID SULFUR DIOXIDE BLOWERS			
LHT 900-11-1	540-900-1180	29.2-29.4-26.1(2980-3000-2660)	350-650
DOUBLE-STAGE COKE GAS BLOWERS			
750-23-8	450-750-900	26.1-29.4-23.6(3310-3000-2410)	270-490
1200-27-2	750-1270-1380	36.9-34.3-33.1(3760-3500-3380)	600-950
LHK 1270/1.3	1270	34.3(3500)	900
LHK 1900/1.3	1900	34.3(3500)	1320
Average values of Q, Pk and ΔP of all CCMs represent standard mode of operation			

LEGEND: : Q - volume capacity under initial conditions
: Pk - absolute output pressure
: N - power consumption
: ΔP - pressure rise