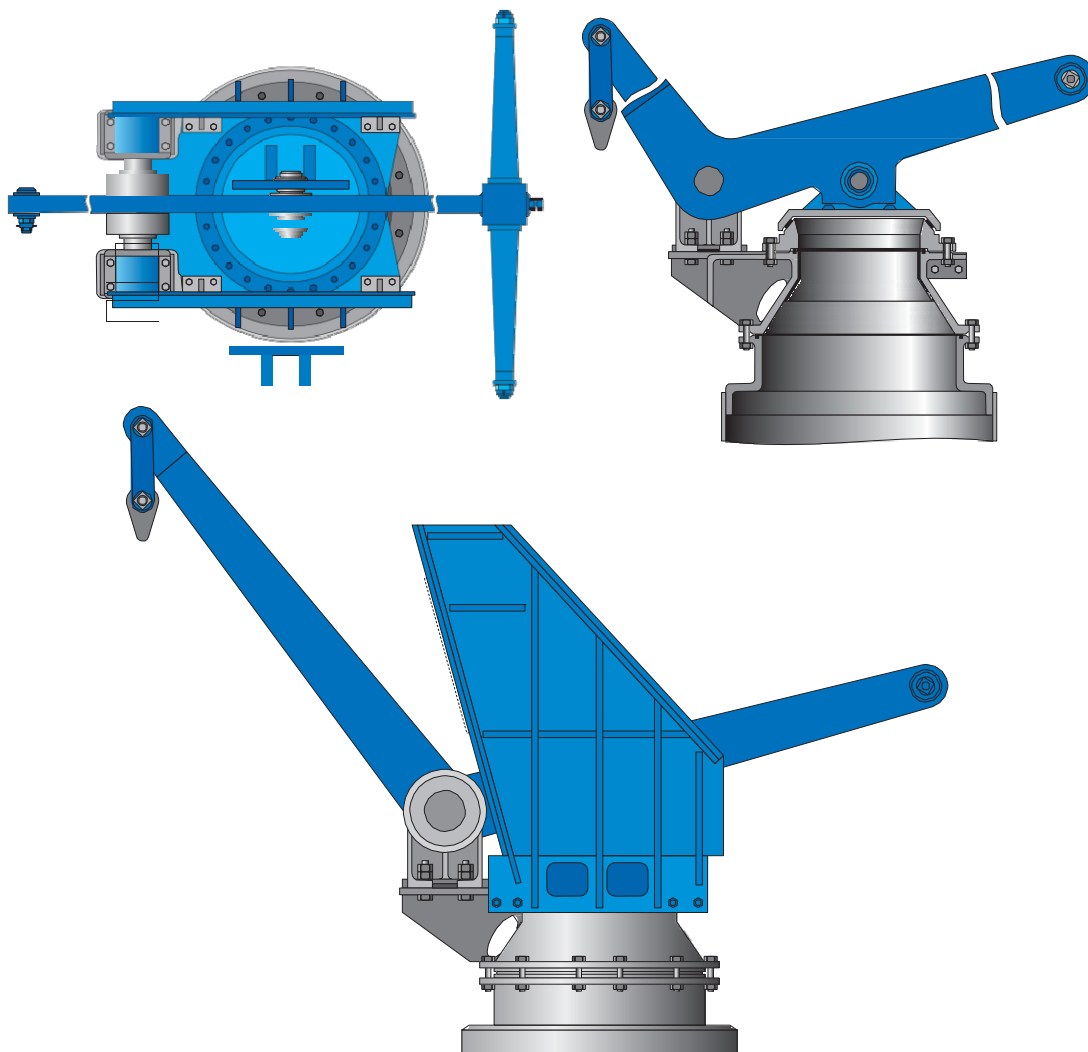


Metallurgical equipment.

Equipment for blast-furnace melting operation stage

BLEEDER VALVES

Valves are designed to release “dirty” gas from a blast furnace into the atmosphere. The valve is opened by means of a winch located in a separate room near the furnace working platform, or by means of a hydraulic actuator.



Technical characteristics

Parameter	Value				
Nominal bore Dn, mm	250	300	400	500	800
Operating gas pressure, kPa	370	370	370	250	250
Max. gas temperature, °C	350	300	450	450	450
Valve drive type	Mechanical				
Counterweight, ton			2	3,3	3,3
Overall size, mm:					



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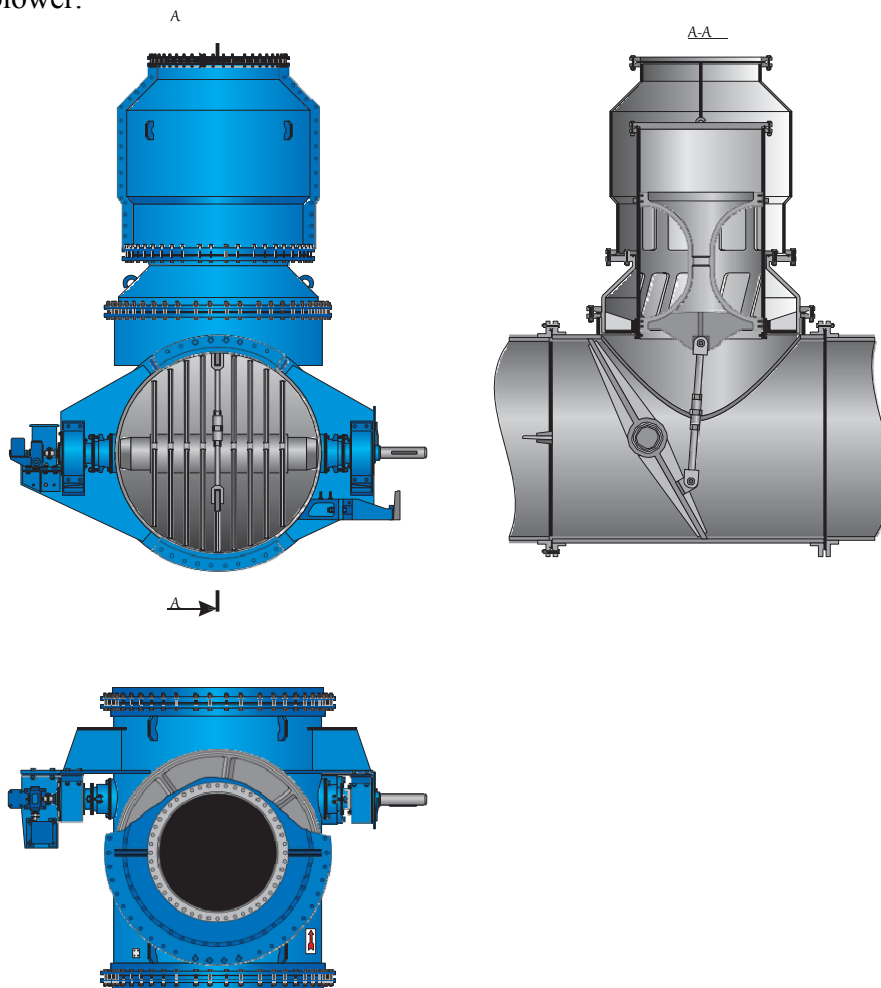
- length					
- width	1020	830	680	1560	1560
- height	1250	1150	2020	2620	2620

Metallurgical equipment.

Equipment for blast-furnace melting operation stage

AIR-DISCHARGE VALVES

Air-discharge valves are installed on the cold blast duct of blast furnace air heaters and are designed to control the amount of air entering the blast furnace, as well as to immediately stop of blasting (if necessary) without stopping the air blower.



Technical characteristics

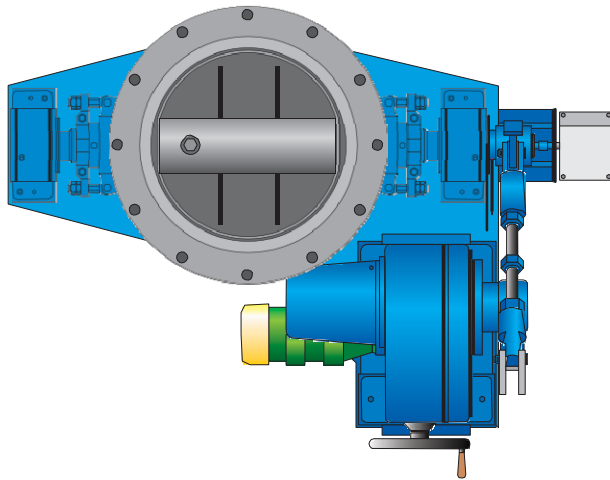
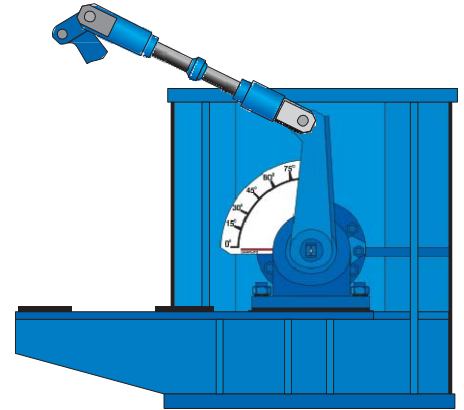
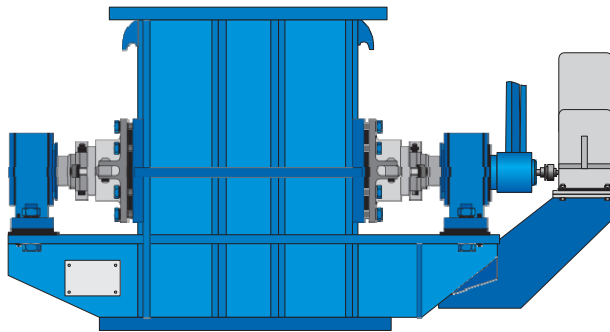
Parameter	Value		
Nominal bore Dn, mm	1400	1600	2000
Air operating pressure, MPa	0,5		
Air temperature, °C	200		
Valve opening (by means of motor) time, s	30		
Valve opening (manually) time, c	70		
Overall gear ratio at motor operation, u	1344		
Gear ratio at manual with manual actuator, u	378		
Overall dimensions, mm:			
- length	2970	2970	2970
- width	3561	3761	4161
- height	4340	4540	4940

Metallurgical equipment.

Equipment for blast-furnace melting operation stage

THROTTLE VALVES Ø425; Ø1000

Throttle valves are designed to operate in blast furnace semiclean gas system for pressure regulation.



Technical characteristics

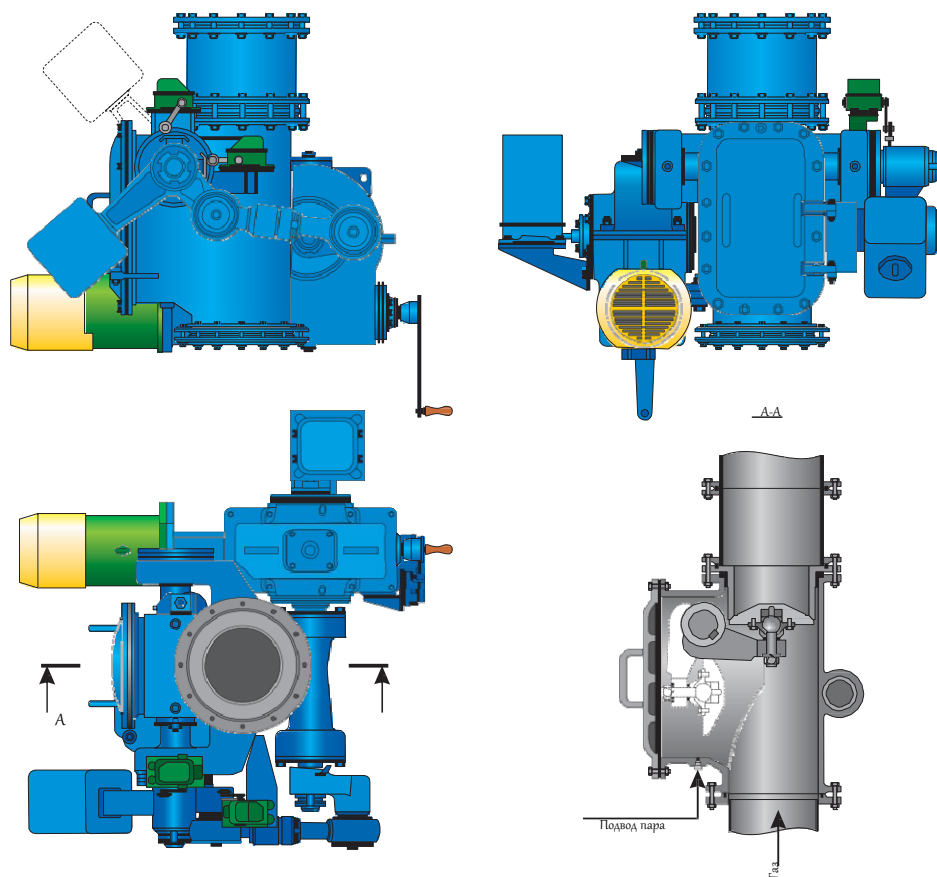
Parameter	Value	
Nominal bore Dn, mm	425	1000
Gas operating pressure, MPa (kgf/cm)	0,25 (2,5)	0,25 (2,5)
Throttle tilting angle, degree	90	90
Throttle full opening time, s	25	63
Overall dimensions, mm:		
- length	1100	1700
- height (with closed throttle)	750	900
- width	992	1852

Metallurgical equipment.

Equipment for blast-furnace melting operation stage

EQUALIZING VALVES

Equalizing valves are designated to be used as the gas stop valves of the blast furnace charging apparatuses. These valves are installed along the vertical portions of the delivery pipelines feeding gas into the area between the top bells of a charging apparatus in order to equalize gas pressure therein with that at the furnace top as well as gas pipelines releasing gas from the top bell area to the atmosphere for equalizing pressure therein with the atmospheric one.



Technical characteristics

Parameter	Value	
Nominal bore Dn, mm	300	450
Operating medium pressure, kPa	37	
- Operating medium temperature, °C - operating - short-time, peak	Up to 300 450	
Valve opening (closing) time, s	Max. 3	
Overall dimensions, mm:		



- length	1730	2345
- height (with closed throttle)	1508	1775
- width		