

WP-1

JWWA

JWWA approval

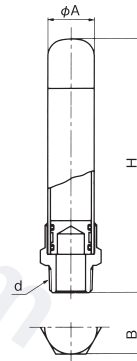
Since complex housing and office buildings become higher and larger, the residential environment, which should be comfortable, faces various threats. Among them is noise caused by water hammer. Just a little carelessness for it brings about damage to devices or disturbance of sleep. The Shock Killer absorbs water hammer and helps create a comfortable residential environment.

■Features

1. Gently absorbs water hammer in buildings with high water pressure.
2. Prevents water hammer at the operation of water faucet lever at toilet or wash basin.
3. Slim and compact body permits horizontal or vertical piping.
4. Prevents water hammer damage to piping and devices.
5. Once installed, it can serve perpetually without maintenance.

■Specifications

Nominal size		15A	20A	25A
Application		Cold and hot water, City water		
Maximum pressure		1.0 MPa		
Maximum temperature		90°C		
Maximum flow velocity		3 m/s		
Material	Body	Brass		
	Pipe	Copper		
Connection		JIS R		
Charged pressure		0.15 MPa		



■Dimensions (mm) and Weights (kg)

Nominal size	d	H	A	B	Weight
15A	R 1/2	123	28.3	32	0.25
20A	R 3/4	154	28.3	32	0.30
25A	R 1	182	34.8	41	0.50

■Effectiveness of the Shock Killer against Water Hammer

Fig 1 and 2 shows the difference in water hammer level between when the Shock killer is used and not used.

Fig. 1 When the Shock Killer is not used

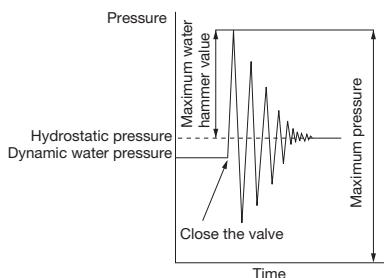
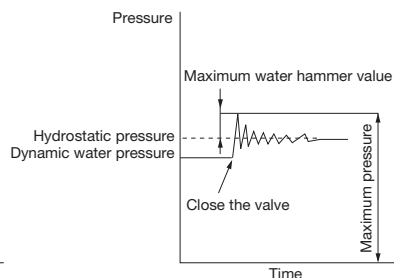


Fig. 2 When the Shock Killer is used



The Shock Killer is available mainly for the two applications below.

Application 1: General house and Complex housing

How to use and select

- 1: In principle, install one Shock Killer in each house.
- 2: To select a nominal size, find the unit of load for each water supply device in Table-1 (under Private room). Apply it to Table-2, and find an appropriate nominal size of the Shock Killer.
- 3: Install another Shock Killer to branch piping if the branch piping is more than 4 meters.
- 4: Additionally, install the Shock Killer close to devices such as solenoid valves where water hammer is a serious problem.

Installation position of the Shock Killer

- 1: Install the Shock Killer midway between the end branch piping and the branch piping before it (in a position within 6 meters from a water supply device).
- 2: When installing the Shock Killer to the branch piping, place it close to a water supply device. When two or more water supply devices are used, install it between the end water supply device and the water supply device before it.

Application 2: High-rise Buildings and Multipurpose Buildings

How to use and select

- 1: Handle the water supply piping as separated on each water supply system.
 - 2: In principle, install one Shock Killer per 6 meters of branch piping.
 - 3: To select a nominal size, find the unit of load for each water supply device in Table-1 (under Public use). Apply it to Table-2, and find an appropriate nominal size of the Shock Killer.
- * If the units of load in total is over 60, use a proper number of 25A Shock Killers to fulfill the units of load.

Installation position of the Shock Killer

- 1: Install the Shock Killer midway between the end water supply device and the water supply device before it.
- 2: When installing two or more Shock Killers, install one midway between the end water supply device and the water supply device before it, and the others at equal intervals between the first Shock Killer and the water supply device on the start point.

Example of installation

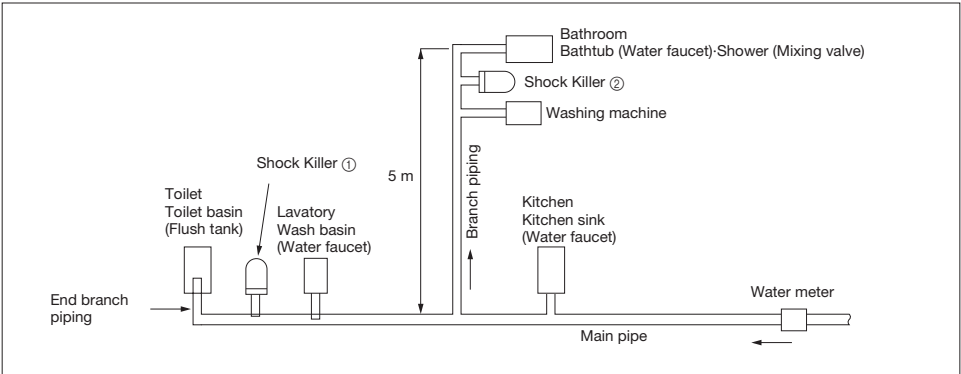


Table-1 Unit of load for water supply devices (Excerpted from SHASE Handbook)

Name of device	Faucet	Unit of load for water supply devices	
		Under Public use	Under Private room
Toilet basin	Flush valve	10	6
//	Flush tank	5	3
Urinal	Flush valve	5	
//	Flush tank	3	
Wash basin	Water faucet	2	1
Hand wash basin	//	1	0.5
Medical wash basin	//	3	
Office sink	//	3	
Kitchen sink	//		3
Cookery sink	//	4	2
//	Mixing valve	3	
Dishwashing sink	Water faucet	5	
Multi-station sink	//		3
Vanity sink (per faucet)	//	2	
Scrab sink	//	4	3
Bathtub	//	4	2
Shower	Mixing valve	4	2
Bathroom-Modular bath	Equipped with toilet basin with flush valve		8
//	Equipped with toilet basin with flush tank		6
Drinking water fountain	Drinking water faucet	2	1
Water heater	Ball tap	2	
Sprinkler-garage	Water faucet	5	

(Note) When a hot water tap is also used, the unit of load for a water supply device to a tap shall be 3/4 of the appropriate value shown in the table above.

Table-2 Nominal size selection table

Total units of load for water supply devices	Nominal size
1-11	15A
12-32	20A
33-60	25A