

# SOUR GAS SAFETY HEADS & RUPTURE DISCS

BuTech safety head assemblies serve as holders for standard rupture discs (sold separately). Safety heads with rupture discs are used as simple and inexpensive overpressure relief devices. System pressure is relieved as a result of rupture of the replaceable disc.

The safety head assemblies shown are designed for use in high pressure systems up to 20,000 PSI (1380 bar). They can be installed directly into any of our standard couplings, elbows, tees, or crosses. Their versatility also allows direct installation into a standard 3-way valve. The result is a combination valve/safety head with beneficial cost and space advantages.

Standard material of construction is 316 stainless steel.

Safety head assemblies and rupture discs are available in two styles:

The **1/4A** style features a 1/4" blow-out diameter, an angular seat and can be ordered in pressures from 900 to 60,000 PSI (62 to 4140 bar)

The **1/2F** style features a 1/2" blow-out diameter, a flat seat and can be ordered in pressures from 500 to 10,000 PSI (34 to 689 bar). This style also has a reversible hold-down ring which greatly reduces the possibility of premature disc failure associated with installation errors inherent in some designs.

Rupture discs are available in a wide range of burst ratings. Factors such as corrosion, fatigue and temperature may affect the burst pressure of the disc and cause premature failure. This problem may sometimes be overcome by frequent replacement of the disc. All discs rated over 500 PSI (34 bar) have a manufacturing tolerance of 3% under to 6% over the specified rupture pressure rating.

Rupture Discs are not included in the safety head assembly. To order discs separately, use the following part numbering system:

Style	Material	Pressure:
4=1/4" Angled	IN=Inconel	List desired pressure at 72°F
8=1/2" Flat		(21°C) in KSI.

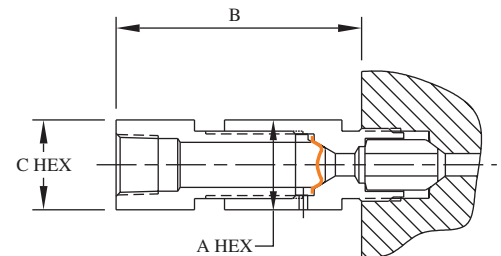
Examples:

An Inconel disc rated for 18,000 PSI in 1/4" Angled style would be ordered as **4IN18.00**

An Inconel disc rated for 750 PSI in 1/2" Flat style would be ordered as **8IN0.750**

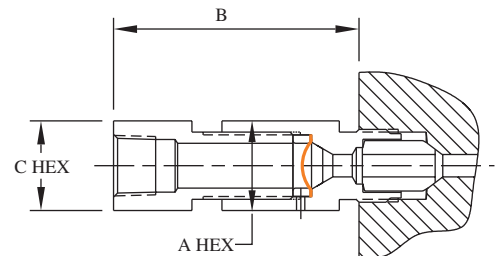
## SAFETY HEADS - 1/4" ANGLED DISC

Catalog Number	Connection	MAWP	A	B	C	Discharge
60SH4-1/4A-SOG	1/4" H/P Tube	30,000 PSI 2070 bar	1.00" (25.4)	2.75" (69.9)	1.00" (25.4)	3/8" FNPT
60SH6-1/4A-SOG	3/8" H/P Tube	30,000 PSI 2070 bar	1.00" (25.4)	2.81" (71.4)	1.00" (25.4)	3/8" FNPT
60SH9-1/4A-SOG	9/16" H/P Tube	30,000 PSI 2070 bar	1.38" (35.1)	2.88" (73.0)	1.00" (25.4)	3/8" FNPT



## SAFETY HEADS - 1/2" FLAT DISC

Catalog Number	Connection	MAWP	A	B	C	Discharge
60SH4-1/2F-SOG	1/4" H/P Tube	10,000 PSI 689 bar	1.00" (25.4)	2.68" (68.1)	1.00" (25.4)	3/8" FNPT
60SH6-1/2F-SOG	3/8" H/P Tube	10,000 PSI 689 bar	1.00" (25.4)	2.81" (71.4)	1.00" (25.4)	3/8" FNPT
60SH9-1/2F-SOG	9/16" H/P Tube	10,000 PSI 689 bar	1.38" (35.1)	2.81" (71.4)	1.00" (25.4)	3/8" FNPT



All dimensions are for reference only and are subject to change.  
Dimensions in parentheses are millimeters (mm)