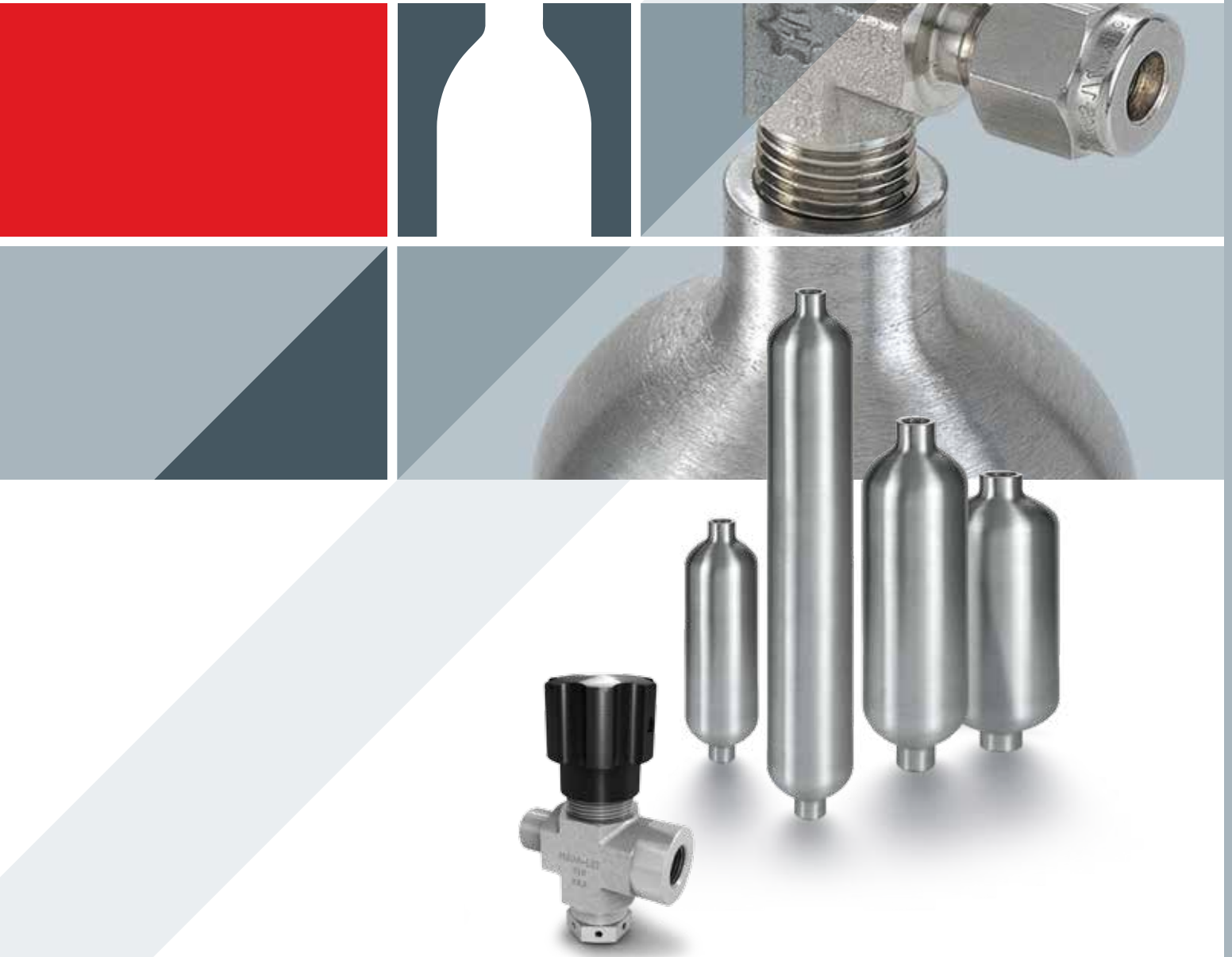


# **SAMPLE CYLINDERS** AND NEEDLE VALVE WITH RUPTURE DISC



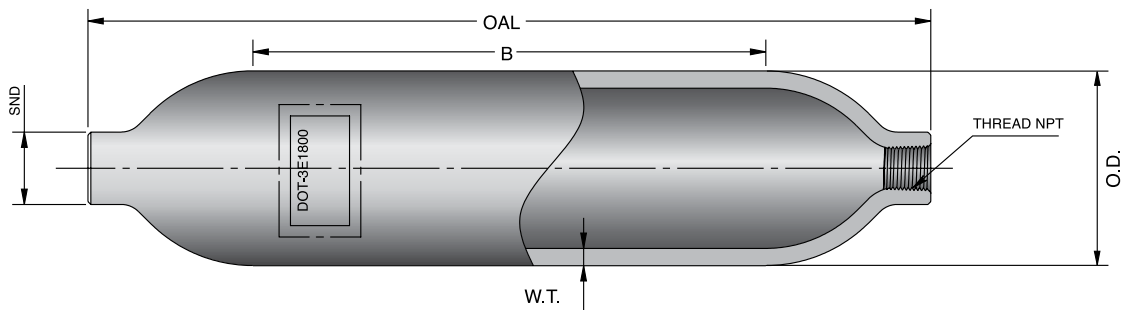
## APPLICATION:

Sampling Cylinders permit the extraction of a sample from a remote process location and provide safe containment for storage and transportation to the laboratory for analysis. These cylinders are rated to 1800 psi at room temperature for liquids and gases. Some applications include hydrocarbon sampling in refineries, gas sampling in chromatography and condensate sampling in fossil-fuel and nuclear-power plants. In similar

applications, petrochemical facilities and gas processing plants utilize sample cylinders. Pressure surge accumulators or reaction vessels are other common uses for sample cylinders.

PROPERTIES: TABLE 1

No.	Description	Material	Pressure Rating (psi)	DOT Stand	Min. Volume	Max. Weight	B	OAL	SND	Thread (NPT)	O.D.	W.T.
1	HSSC15-1BH	St.St.316	1800	3E	50 CC (3.05 IN <sup>3</sup> )	0.5 LBS	1.64"	3.80"	0.72"	1/4-18	1.5"	0.083"
2	HSSC15-2BH				75 CC (4.6 IN <sup>3</sup> )	0.6 LBS	2.72"	4.88"				
3	HSSC15-3BH				150 CC (9.2 IN <sup>3</sup> )	1.0 LBS	6.09"	8.25"				
4	HSSC15-4BH				150 CC (9.2 IN <sup>3</sup> )	1.0 LBS	6.09"	8.54"	0.85"	3/8-18		
5	HSSC20-1BH				300 CC (18.3 IN <sup>3</sup> )	1.8 LBS	6.79"	9.25"	0.74"	1/4-18	2"	0.095"
6	HSSC20-2BH				500 CC (30.5 IN <sup>3</sup> )	2.5 LBS	11.42"	13.88"	0.74"			



### Material Traceability

Raw material is heat code traceable. This traceability follows each cylinder through manufacturing, heat treating, cleaning and pressure testing.

### Cylinder Manufacturing Standards

DOT CFFC, FRP-1, FRP-2, 3A, 3AA, 3AL, 3E, 3HT, 39, NGV2, FMVSS, HSE FW1/FW2, TUV, KHK, MIL-C-7905, MS26545, MIL-R-8573, EN1975, 12245 and others.

### Applicable Valves with Sample Cylinders

HAM-LET H-285 Needle Valve with Rupture disc.

■ The Sample Cylinders product variety in the catalog covers our standard line. Extensive options are available per request.

### Notes:

1. Dimensioning and tolerancing per ANSI Y 14.5M.
2. Cylinder manufactured and inspected in accordance with DOT '49 CFR 178.42 Specification 3E.
3. Material: seamless cold-finished stainless steel tubing per ASTM A269.
4. Lot size 500 cylinders.
5. Heads formed using spinning process.
6. Sandblast inside surfaces.
7. Thread ends per ANSI B1.20.1.
8. Part is free of grease, machine oil & other debris inside and out. Acid wash and rinse with deionized water.
9. Rotate sand entire cylindrical outer surface to finish 32µInch.
10. Destructive acceptance criteria (one cylinder per lot) per DOT 3E: - Cylinder burst between 6,000 and 12,000 psi without fragmentation; or - Cylinder holds 12,000 psi for 30 seconds without burst, and withstands flattening test to six times the wall thickness without cracking.
11. Non-destructive acceptance criteria (all cylinders) per DOT 3E: hydrostatic proof test at 3,000 +100/- 0 psi for 30 seconds minimum without failure or evidence of defect.
12. Minimum water volume: see table 1.
13. Maximum cylinder weight: see table 1.
14. Cylinder operating pressure: 1800 psi.

# NEEDLE VALVE WITH RUPTURE DISC

## FEATURES

- Soft Seat Non rotating Stem
- MAWP 3000 psi (206 bar)
- MAWT 122 Deg C (255 Deg F) with PCTFE seat.
- rupture disc pressure ratings: 1900 psi (131 bar), 2850 (196 bar)
- orifice size :5.6 mm (0.218 inch)

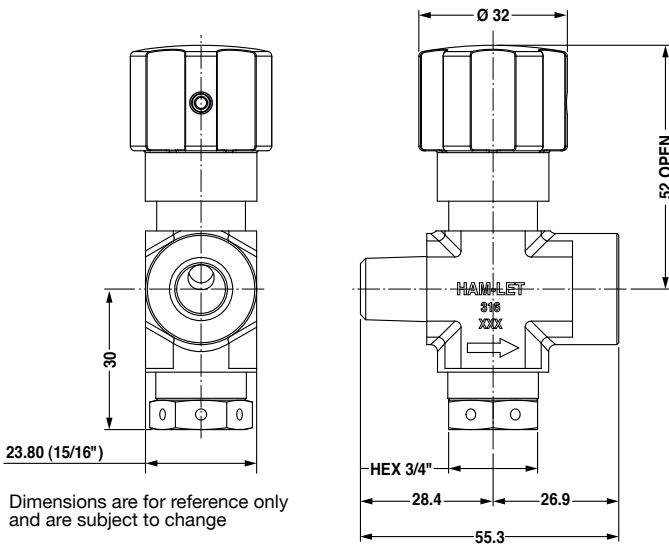
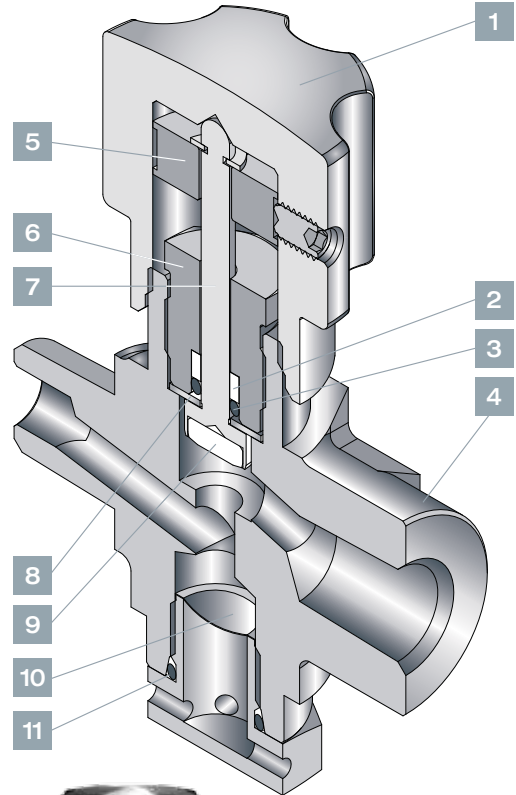
## Precautions

This device should be assembled and tested by a trained person only. Be sure to keep all needed precautions of compressed gas cylinders in accordance to the required specifications.

## GENERAL

HAM-LET Needle Valves with Rupture discs were designed to be mounted on HAM-LET sample cylinders, the Rupture disc provides protection against over pressure in sampling units by venting the media to the atmosphere. The Rupture disc element is welded to a carrier that is assembled to the Valve with an O-Ring seal. A Rupture Disc unit can be easily replaced in the field while the valve remains connected to the sampling unit.

MATERIAL OF CONSTRUCTION			
No.	Component	Qty.	Material
1	Handle	1	Aluminium 6061
2	Back up O-Ring	1	PTFE
3	O-Ring	1	Buna-N
4	Body	1	St.St. ASTM A-182
5	Spool	1	Aluminium 6061
6	Packing Bolt	1	St.St. ASTM A-276
7	Stem	1	St.St. ASTM A-276
8	Washer	1	PEEK
9	Stem Tip	1	PEEK
10	Rupture Disc Unit	1	St.St. ASTM A-276 + Alloy 600/B168
11	O-Ring	1	Fluorocarbon FKM



Dimensions are for reference only and are subject to change



## ORDERING INFORMATION

**H - 285 - SS - N - P - 1/4 - RD1900**

Stem Tip Material	Rupture Pressure
<b>P</b> PEEK	<b>1900</b> 1900 Psi
	<b>2850</b> 2850 Psi

**Z - RDU - 1/4 - 1900**

Rupture Pressure	Pressure rating
<b>1900</b> 1900 Psi	± 100 Psi @ 20°C
<b>2850</b> 2850 Psi	± 100 Psi @ 20°C

Sample Cylinder | Rupture Disc, Rev.01, January 2014

