PRESSURE REDUCING VALVE
MODEL PRV-V

HD FIRE PROTECT LIMITED

TECHNICAL DATA

MODEL	PRV-V
SIZE	200, 150, 100, 80 & 50 NB (8", 6",4",3" & 2")
END CONNECTION	Groove X Groove Flange X Flange (ANSI B16.5 #150 RF or FF)
SERVICE PRESSURE	20.7 BAR / 300 PSI Maximum inlet pressure
PRESSURE REDUCING	3.45 to 13.8 BAR / 50 to 200 PSI
THREADED OPENING	BSPT standard supply NPT optional supply
MOUNTING	Horizontal or Vertical
NET WEIGHT WITHOUT TRIM	FxF / GxG 200 NB - 163 kg / 138 kg 150 NB - 92 kg / 77 kg 100 NB - 48 kg / 37 kg 80 NB - 34 kg / 27 kg 50 NB - 19 kg / 15 kg
FINISH	Red to RAL 3001 as standard supply
ORDERING INFORMATION	1. Size of valve 2. Specify FxF or GxG with pipe outside diameter 3. Valve mounting- Horizontal or Vertical 4. Pressure reducing setting required

Note:

1 For 6"(150 NB), standard supply is 168.3mm OD Groove pipe. For 165.1mm requirement, specify in order.

2. HD valves with flanged connections are designed as per ANSI B16.5 Class 150 (RF or FF, without serration). They are not compatible with ANSI Class 250 or Class 300 flanges. For higher-class requirements, use grooved-end valves with listed adaptors of suitable pressure rating.

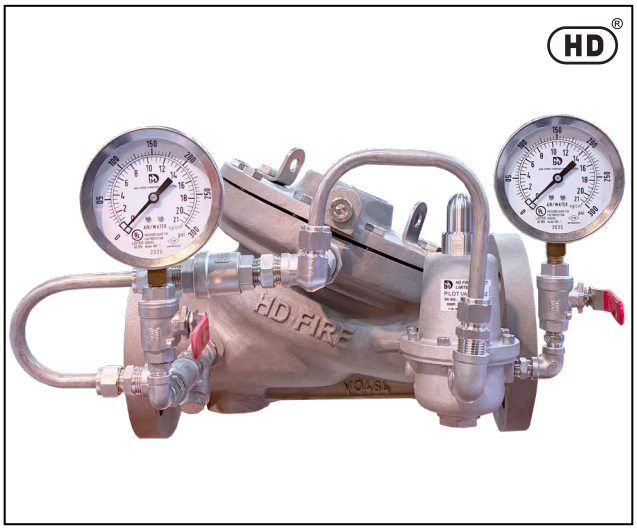
3. Pressure Reducing Valve is for close type sprinklers.

4. The difference between the water supply pressure (upstream) and the desired outlet (downstream) pressure must be 3.4 BAR (50 PSI) or greater.

5. Cavitation may occur when the inlet pressure (upstream) is greater than twice the set pressure (downstream). In such case, the pressure should be reduced in two steps by using two PRV-V in series.

6. Standard Factory outlet set pressure is 8.5 BAR unless specified by user.

7. **If the system has zero flow (static condition), install an appropriate relief valve on the downstream side set at 0.5 to 1 BAR (7.3 to 14.5 PSI) above the PRV setting.**



PRODUCT FEATURES

- **THE VALVE IS PROVIDED WITH FIELD REPLACEABLE SEAT INSERT, INCREASING THE VALVE LIFE**
- **300 PSI RATED PRESSURE**
- **BASIC VALVE IS PATENTED**
- **FIELD ADJUSTABLE FOR PRESSURE REDUCTION**
- **SEAT INSERT IN VARIOUS CORROSION RESISTANT MATERIAL**
- **VALVE COATED WITH HIGH-BUILD FUSION BOND EPOXY FOR PROTECTION AGAINST CORROSION AND WITH UV PROTECTION PROVIDED AS OPTIONAL**
- **INLINE INSPECTION, SERVICING AND REMOVAL OF DIAPHRAGM WITHOUT REMOVAL OF TRIM**
- **LOW FRICTION LOSS**
- **NO MECHANICAL MOVING PARTS**

DESCRIPTION

HD PRV-V is Pressure Reducing Valve; it automatically reduces higher inlet pressure to a steady lower outlet pressure. The Pressure Reducing Valve is field adjustable through Pilot Valve. Pressure reduction is regardless of change flow rates or pressure. These valves are available in a variety of material options. The valve is fusion bond epoxy coated internally and externally.

The HD PRV-V valve is provided with a factory outlet set pressure of approximately 8.5 BAR (123 PSI). However, it may be field set to a nominal outlet pressure of 50 to 200 PSI.

RE-ADJUSTMENT OF PRESSURE SETTING

Pressure Reducing Valve and downstream relief valve is preset at factory as per customer's requirement. If re-adjustment is required, then follow following steps:

- Re-adjustment must have at least 50 PSI pressure difference from upstream (inlet) to downstream (outlet) pressure.
- For PRV-V pressure adjustment, follow the guide-lines given under FIGURE-1 for Pilot Valve.
- Once the PRV-V is set, then reset the Direct Acting Relief Valve (PR) to 0.5 to 1 BAR (7.3 to 14.5 PSI) above the set pressure of Pressure Reducing Valve (PRV-V).

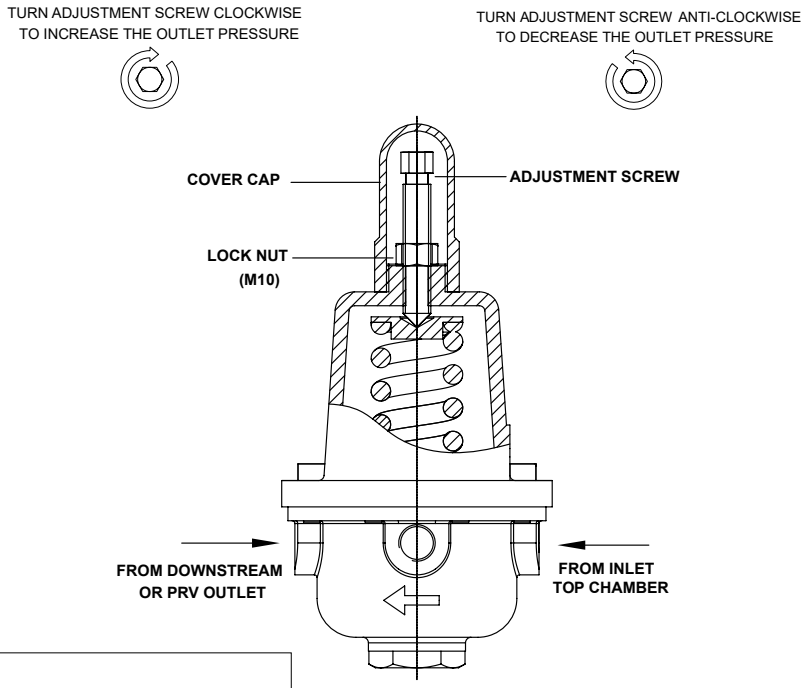
APPLICATION IN FIRE PROTECTION

HD PRV-V is used in closed sprinkler system, deluge or preaction system.

PRESSURE REDUCING VALVE MODEL PRV-V

Model	Material for Housing & Cover	Diaphragm
PRV-V3	Ductile Iron ASTM A536, Grade 65-45-12	EPDM
PRV-V2	Cast Steel ASTM A 216 WCB	EPDM
PRV-V5	Nickel Aluminium Bronze BS 1400-AB2 (ASTM B148 Grade C95800)	EPDM
PRV-V6	Stainless Steel 316 ASTM A351, Grade CF8M	EPDM

PILOT VALVE FOR PRESSURE REDUCING VALVE (PRV-V)

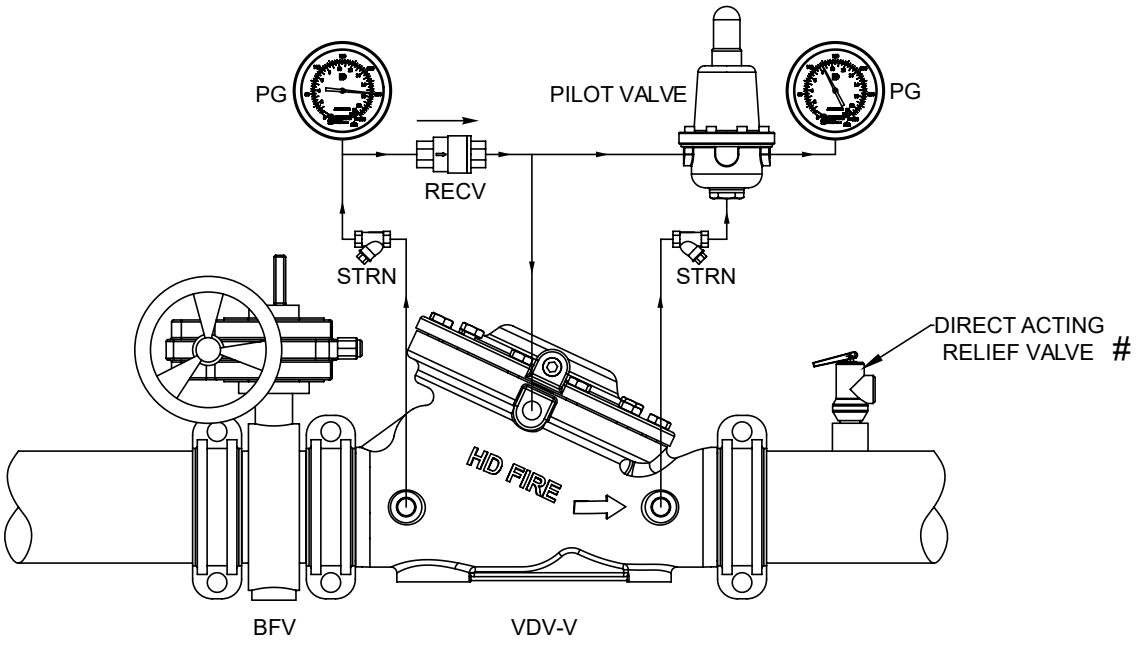


SET PRESSURE ADJUSTMENT

- REMOTE COVER CAP
- LOOSEN THE LOCK NUT
- USE SPANNER TO ROTATE THE ADJUSTMENT SCREW
- ROTATE CLOCKWISE TO INCREASE OUTLET SET PRESSURE
- ROTATE ANTI-CLOCKWISE TO DECREASE OUTLET SET PRESSURE
- TIGHTEN THE LOCK NUT
- FIX THE COVER CAP

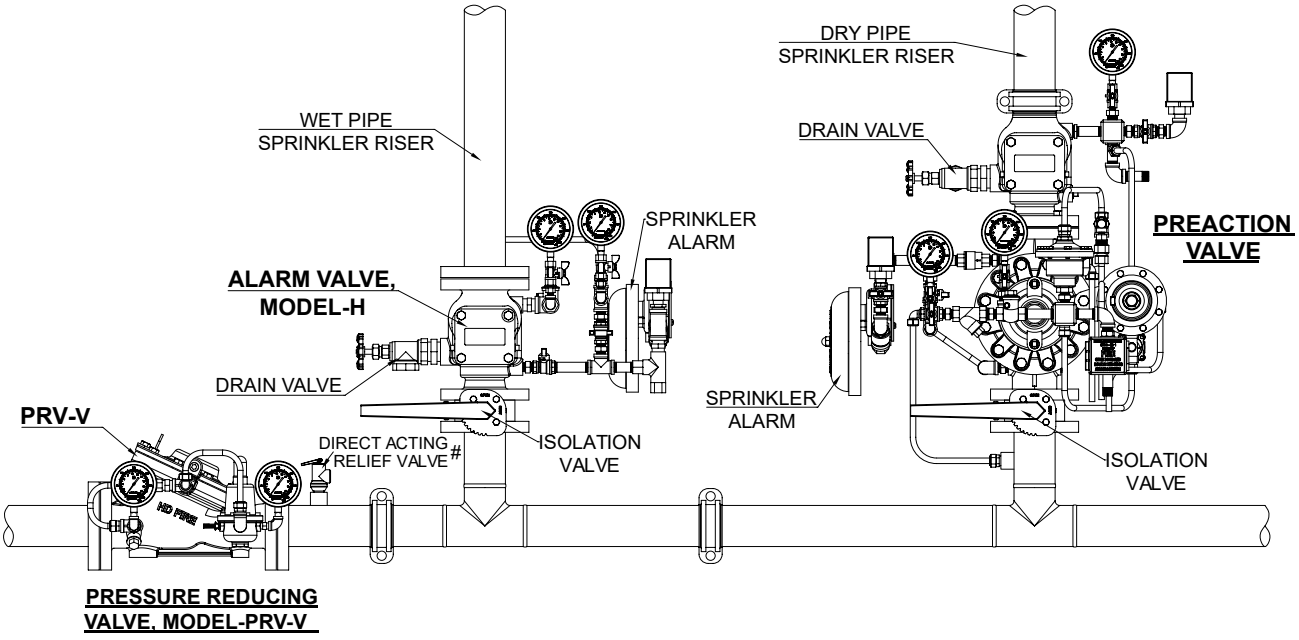
FIGURE-1

PRESSURE REDUCING VALVE - MODEL PRV-V



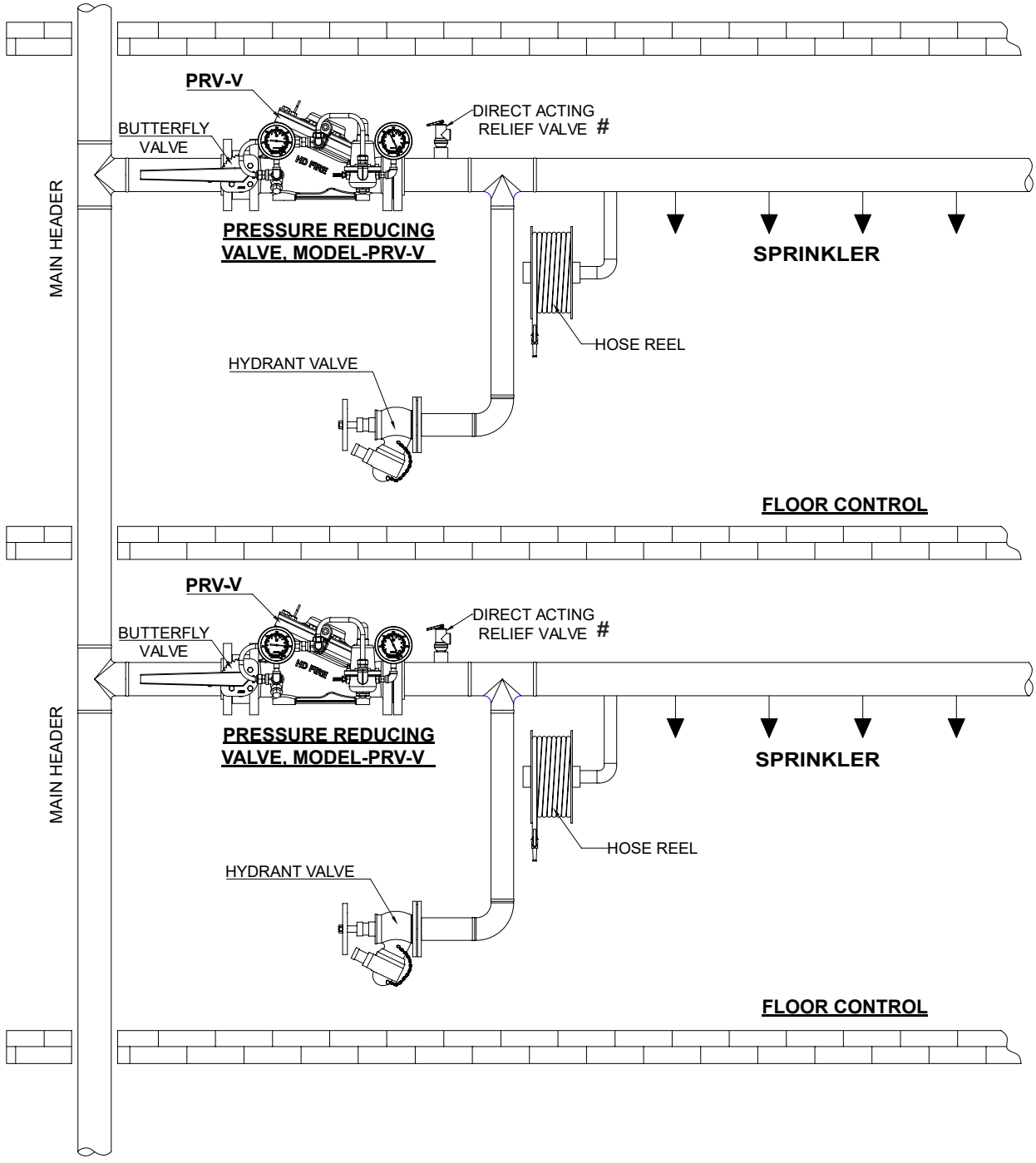
VDV-V - VIRAT DV-V SERIES VALVE
PRV - PRESSURE REDUCING PILOT VALVE
RECV - NRV WITH RESTRICTION HEX NIPPLE
STRN - STRAINER
BFV - BUTTERFLY VALVE
PG - PRESSURE GAUGE

PRESSURE REDUCING VALVE MODEL PRV-V – TYPICAL MAIN HEADER APPLICATION



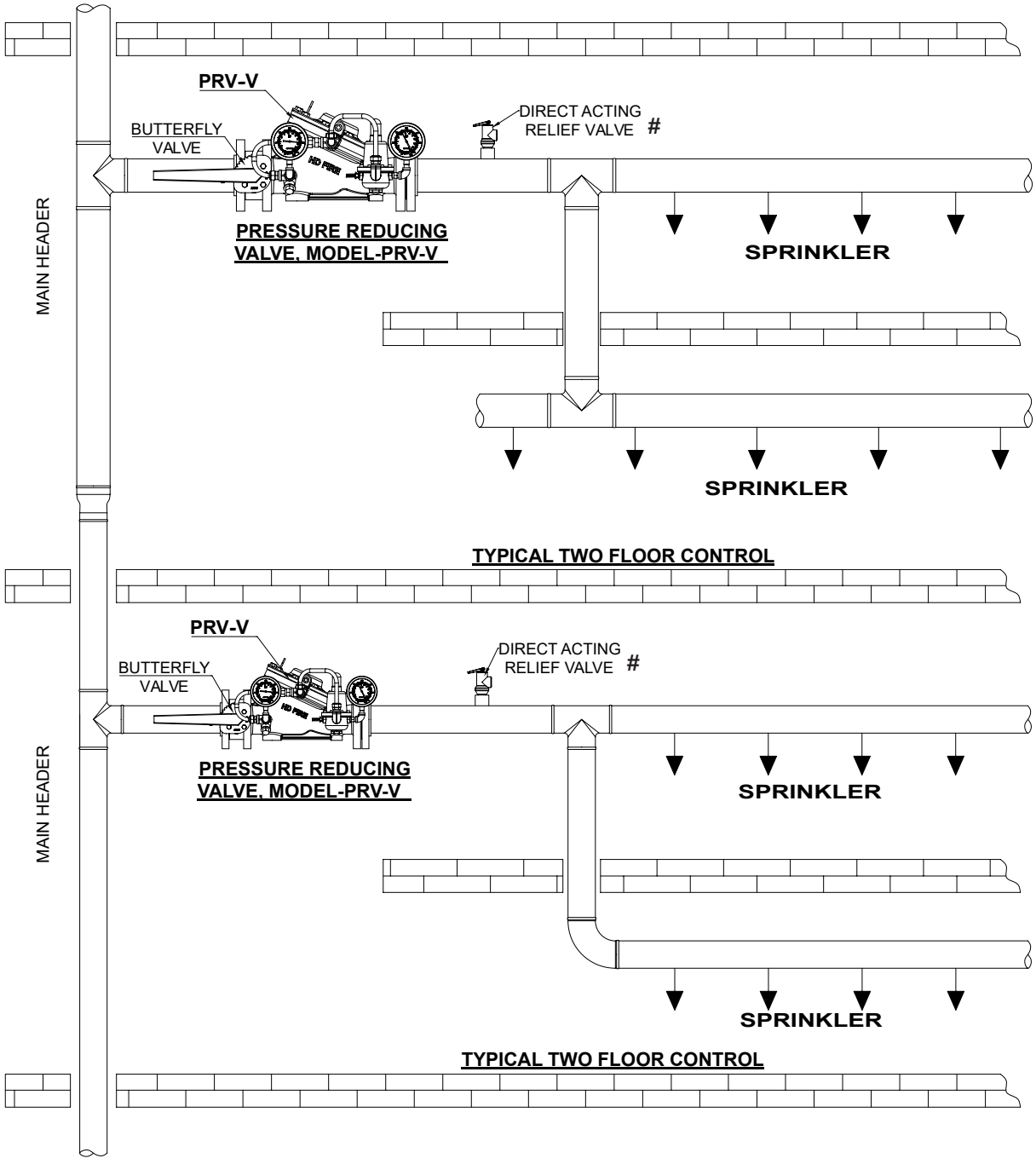
 # Direct Acting Relief Valve to be set 0.5 BAR higher than set outlet pressure.

PRESSURE REDUCING VALVE PRV-V – TYPICAL MAIN HEADER APPLICATION



 # Direct Acting Relief Valve to be set 0.5 BAR higher than set outlet pressure.

PRESSURE REDUCING VALVE PRV-V – TYPICAL TWO FLOOR CONTROL PER PRV-V



Note:

1) Considering discharge device flow, the valve size shall be selected.

2) # Direct Acting Relief Valve to be set 0.5 BAR higher than set outlet pressure.

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