

## **Documentation Corrections/Clarification**

**Subject:** Correction to Standard Configuration of 10 IPS through 16 IPS Valves, Clarification of Body Size vs. Nominal Pup Size, and New 12 IPS Full-Port Statement.

**1) The configuration for “standard” Lyall-Polytec 10 IPS through 16 IPS valve sizes has changed from when the marketing materials and technical data package were created.**

The data within these materials is misleading for the actuator type and the added differential by-pass feature for 10 IPS and larger sized valves. This change affects the physical dimension data only, all other operational specifications, flow data, etc. is correct as stated.

**Issue:**

The current documentation represents these larger models as having a typical actuator (operating nut) for opening and closing the valve. Though this type of actuator can be ordered through Lyall for large valves, it would need to be ordered as an option and may require special ordering.

Because of the pressure within a typical 10 IPS and larger system, using a Gear type actuator can minimize the torque required to operate these valves. For valve sizes 12 IPS Full Port and larger, a Differential By-pass feature is provided to equalize the pressure on a closed valve for easy operation and minimize any stress on the ball and seals during its operation.

**Correction:**

- 1) The “standard” configuration for 10 IPS Full Port and 12 IPS Reduced Port models is with a short Gear Actuator.
  - Options provided for this configuration are: Longer Gear Actuator, Purge Ready, Purge Port Valves, and/or Differential Bypass.
- 2) The “standard” configuration for 12 IPS Full Port and all 14 IPS and 16 IPS models is with a short Gear Actuator and with a differential by-pass valve attached.
  - Options provided for this configuration are: Longer Gear Actuator.
- 3) Again, for the 10 IPS through 16 IPS models, the option of having a typical 2” Actuating Nut is available, but may require minimal ordering quantities or special handling for this non-standard configuration.

**2) Questions have also come up regarding some of the data being confusing and/or is missing certain sizes of valves.**

This is not true, please note that in some sections within the technical materials only provides data for the “Valve BODY Size” (not the “Nominal PUP Size” which is what we reference as valve size). This is because the same body size is used for multiple PUP (pipe) sizes and the data is only relative to the body and/or Ball portion of the valve. This confusion will be removed from future releases of Lyall-Polytec documents.

The following chart states what “**Body Size**” is used for each “**Nominal PUP Size**” (this cross reference can also be useful in the Valve Characteristics charts in both the Technical Data Package and the Sales Binder data):

**Body Size / Nominal PUP Size Cross Reference**

VALVE BODY SIZE	Nominal PUP SIZE	DR <sup>1</sup>	MINIMUM WALL THICKNESS	Port Type
1 IPS Body Size Used	½ CTS	7	0.090	Full
	1 CTS	11	0.101	Full
	1¼ CTS	15.3	0.121	Full
	½ IPS	9.3	0.090	Full
	¾ IPS	11	0.095	Full
	1 IPS	11	0.119	Full
	1¼ IPS	10 11	0.166 0.151	Reduced
1½ IPS Body Size Used	1½ IPS	11	0.173	Reduced
2 IPS (Smaller Body Size Used)	2 IPS	11	0.216	Reduced
2 IPS (Larger Body Size Used)	2 IPS	11	.216	Full
3 IPS Body Size Used	3 IPS	11	.318	Full
		11.5	.304	
		13.5	.259	
	4 IPS	11	.409	Reduced
		11.5	.391	
		13.5	.333	
4 IPS Body Size Used	4 IPS	11	.409	Full
		11.5	.391	
		13.5	.333	
	6 IPS	11	.602	Reduced
		11.5	.576	
		13.5	.491	
6 IPS Body Size Used	6 IPS	11	.602	Full
		11.5	.576	
		13.5	.491	
8 IPS Body Size Used	8 IPS	11	.784	Full
		11.5	.750	
		13.5	.639	

**Example:** If you are looking for the **Operating Torque** value for the **6 IPS Reduced Port** valve, then you need to **reference the data for 4 IPS Body Size**.

## Body Size / Nominal PUP Size Cross Reference

VALVE BODY SIZE	Nominal PUP SIZE	DR <sup>1</sup>	MINIMUM WALL THICKNESS	Port Type
10 IPS Body Size Used	10 IPS	11	.977	Full
		11.5	.935	
		13.5	.796	
	12 IPS	11	1.159	Reduced
		11.5	1.109	
		13.5	.944	
14 IPS Body Size Used	12 IPS (See note Below)	11	1.159	Full
		11.5	1.109	
		13.5	.944	
	14 IPS	11	1.273	Full
		11.5	1.217	
		13.5	1.037	
	16 IPS	11	1.455	Reduced
		11.5	1.391	
		13.5	1.185	

**Example:** If you are looking for the **Operating Torque** value for the **16 IPS Reduced Port** valve, then you need to **reference the data for 14 IPS Body Size**.

### Note regarding 12 IPS Full Port Valves

Though the Lyall-Polytec 12 IPS full-port valve is a newly released product, the valve components are not new. The 12 IPS full-port valve utilizes the body of the 14 IPS model with 12 IPS molded pups fused to it, so you can reference the data listed under the 14 IPS model, until which time the marketing materials are updated.

**Please contact your Lyall-Polytec representative for updated drawing and other technical information releases.**