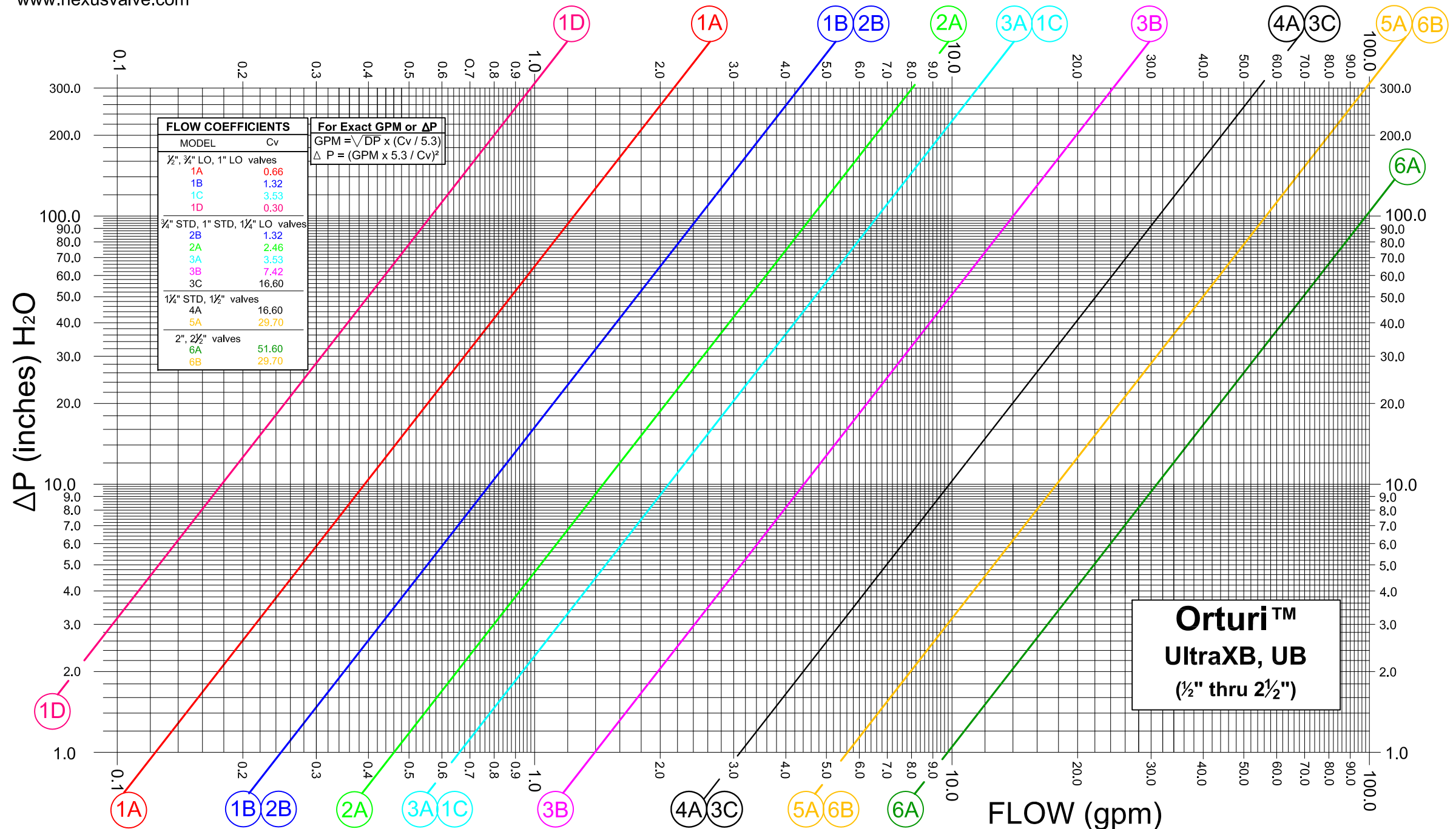
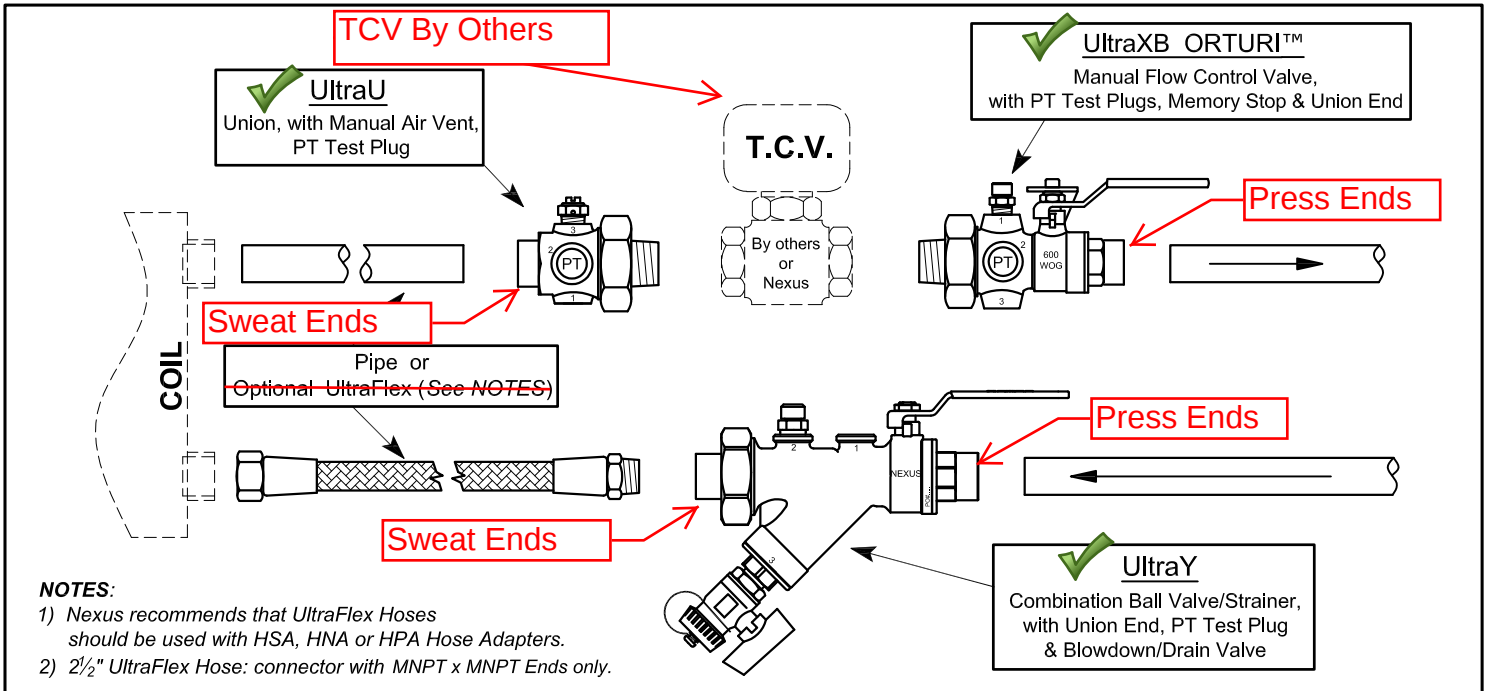


Nexus Orturi™ Flow Chart

Meter Readings, Water @ 70°F / 21°C





MATERIALS & DESIGN DATA

BODIES, END PIECES	HOT FORGED BRASS ASTM B283 (CAST BRASS: UY (2", 2½")) FNPT, SWT, NexPress, NexLok 600 WOG, 325°F (NexPress: 200 PSIG, 250°F / NexLok: 250 PSIG, 200°F), INTERCHANGEABLE UNION ENDS
HANDLES & NUTS	ZINC PLATED / PVC COATED
FILTER SCREEN (UY)	304 STAINLESS STEEL, 20 MESH / 40 MESH (optional)
BALLS	HARD CHROME PLATED BRASS / <u>STAINLESS STEEL (optional)</u>
BALL SEALS	TEFLON
SHAFTS	BRASS / <u>STAINLESS STEEL (optional)</u> , BLOWOUT-PROOF SHAFT
SHAFT SEALS	DUAL FKM O-RINGS
UNION SEALS	FKM O-RING
CAP SEAL (UY)	FKM O-RING
HOSE SPECS	400 PSI (½" thru 1"), 248°F 300 PSI (1¼" thru 2"), 248°F 400 PSI (2½"), 70°F
HOSE CORE	REINFORCED EPDM
HOSE BRAID	STAINLESS STEEL
HOSE FITTINGS	BRASS OT58
HOSE GASKET	EPDM

FLOW RANGE SELECTOR

SIZE [inches]	SELECTOR
½, ¾ LO, 1 LO	1A, 1B, 1C, 1D
¾ STD, 1 STD, 1¼ LO	2A, 2B, 3A, 3B, 3C
1¼ STD, 1½	4A, 5A
2, 2½	6A, 6B

ACCESSORIES

Order Code	Part No.	Description
H	HT.	HANGING TAG with Model No., Location, Flow Rate (Maximum 7 Characters)
K	ES.	EXTENSION KITS
L	SL.	SHORT LEVER HANDLE
M	HNA.	HOSE ADAPTER. Straight and MNPT pipe threads
S	HSA.	HOSE ADAPTER. Straight pipe threads and Sweat end
P	HPA.	HOSE ADAPTER. Straight pipe threads and NexPress end
T	T.C.V.	Handling (TC) & Hard Piped (CC) (See TCV Catalog for Order Codes)

ORDER DATA

Sample Part #:

O2Y-150-SM1C05AM0

Model	O	2	Y
Valve Trim	-	1	5
Coil Pak Size	0	-	S
Branch Line	M	1	C
Connection to TCV	0	5	A
Connection to Coil	M	0	
Flow Range Selector			
Hose Adapters (Con. Type & Red. Code)			
Accessory Cap Option			
Option Order Codes (Accessories)			

Please consult the "Ordering Guide" section in Nexus Valve Catalog
for complete part number and ordering information.

PROJECT _____

CONTRACTOR _____

PO/JOB NO. _____

ENGINEER _____

REPRESENTATIVE _____

DATE _____

UltraXB Orturi™ Model XB

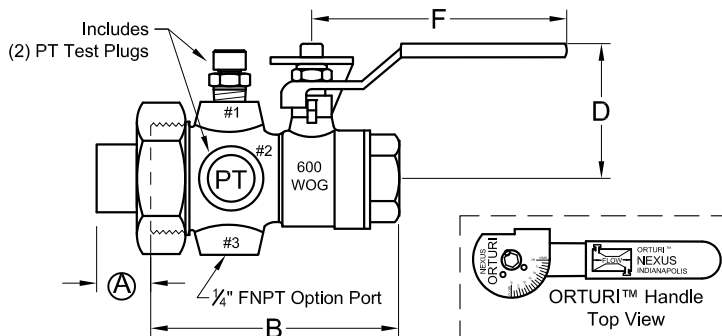
Calibrated Manual Balancing Valve

(½" thru 2½")

Coil Paks for terminal units,
hydraulic equipment.

Valve Body available in FNPT, Sweat, NexPress or NexLok

DIMENSIONS [inches]									
SIZE [inches]	LO	STD	A	F (NPT)	S (Sweat)	P (NexPress)	L (NexLok)	D	WT [lbs] (Tail Pieces & Nuts not included)
½		✓		2.9	3.1	3.5	3.1	1.7	1.9
¾	✓			2.9	3.2	3.5	3.4	1.7	1.9
¾		✓		3.1	3.3	3.6	3.6	1.8	3.1
1	✓			3.3	3.4	3.5	4.0	1.7	1.9
1		✓		3.3	3.5	3.6	4.1	1.8	3.1
1¼	✓			3.6	3.6	5.7	-	1.8	3.1
1¼		✓		4.1	4.3	6.3	-	2.5	4.3
1½		✓		4.1	4.4	6.6	-	2.5	4.3
2		✓		5.0	5.8	7.7	-	3.4	5.5
2½		✓		5.2	6.0	-	-	3.4	5.5



TAIL PIECE OPTION	Nexus P/N	Lengths [inches]	Use with Valve Body size
 MNPT (Male NPT Thread)	TP075-050M	1.00	½, ¾ LO, 1 LO
	TP125-050M	1.04	¾ STD, 1 STD, 1¼ LO
	TP125-075M	1.16	
	TP125-100M	1.29	
	TP200-050M	1.04	1¼ STD, 1½
	TP200-075M	1.16	
	TP200-100M	1.39	
	TP200-125M	1.85	
 FNPT (Female NPT Thread)	TP200-150M	1.89	2, 2½
	TP250-100M	1.93	
	TP250-125M	1.93	
	TP250-150M	1.97	
	TP250-200M	2.00	¾ STD, 1 STD, 1¼ LO
	TP125-050F	1.00	
	TP125-075F	1.00	
	TP125-100F	1.20	
 SWT (Female Sweat)	TP200-100F	1.61	1¼ STD, 1½
	TP200-125F	1.57	
	TP200-150F	1.16	
	TP250-125F	1.77	2, 2½
	TP250-150F	1.97	
	TP250-200F	1.36	
	TP250-250F	1.74	
 NexPress	TP075-050S	0.59	½, ¾ LO, 1 LO
	TP125-050S	0.60	¾ STD, 1 STD, 1¼ LO
	TP125-075S	0.85	
	TP125-100S	1.00	
	TP200-075S	1.85	1¼ STD, 1½
	TP200-100S	1.85	
	TP200-125S	1.85	
	TP200-150S	1.38	
 NexLok	TP250-125S	1.69	2, 2½
	TP250-150S	1.97	
	TP250-200S	1.65	
	TP125-050P	1.46	¾ STD, 1 STD, 1¼ LO
	TP125-075P	1.54	
	TPA125-100P	3.85	
	TPA125-125P	4.23	
	TP200-100P	1.58	1¼ STD, 1½
	TPA200-125P	3.70	
	TPA200-150P	3.63	
	TPA250-150P	4.44	2, 2½
	TPA250-200P	4.07	
	TP125-050L	1.03	¾ STD, 1 STD, 1¼ LO
	TP125-075L	1.29	
	TP200-100L	1.65	
			1 STD (with Union Adapter)

FLOW RATE SELECTION GUIDE		
FLOW SELECTOR	SIZE(s)	Cv
1A	½, ¾ LO, 1 LO	0.66
1B	½, ¾ LO, 1 LO	1.32
1C	½, ¾ LO, 1 LO	3.53
1D	½, ¾ LO, 1 LO	0.30
2B	¾ STD, 1 STD, 1¼ LO	1.32
2A	¾ STD, 1 STD, 1¼ LO	2.46
3A	¾ STD, 1 STD, 1¼ LO	3.53
3B	¾ STD, 1 STD, 1¼ LO	7.42
3C	¾ STD, 1 STD, 1¼ LO	16.60
4A	1¼ STD, 1½	16.60
5A	1¼ STD, 1½	29.70
6A	2, 2½	51.60
6B	2, 2½	29.70

MATERIALS & DESIGN DATA

BODY, END PCSHOT FORGED BRASS ASTM B283,
600 WOG, 325°F (NexPress: 200 PSIG, 250°F /
NexLok: 250 PSIG, 200°F),
INTERCHANGEABLE UNION ENDS,
¼" FNPT OPTION PORT (3 EACH)
HANDLE & NUTZINC PLATED / PVC COATED
MEMORY STOPMS-1: 1080 COLD ROLLED STEEL, COATED
MS-3: 304 STAINLESS STEEL
BALLHARD CHROME PLATED BRASS /
STAINLESS STEEL (optional)
BALL SEALSTEFLON
SHAFTBRASS / STAINLESS STEEL (optional)
BLOWOUT-PROOF
SHAFT SEALSDUAL FKM O-RINGS
UNION SEALSFKM O-RING
ACCURACY±3%

For part numbers and ordering information please consult
the "Ordering Guide" section in Nexus Catalog.

ACCESSORIES

Order Code	Part No.	Description
	A	AV-025. AUTOMATIC AIR VENT 250°F, 150 PSIG, positive shut-off, ¼" MNPT
	B	BD-025. BLOWDOWN / VENT / DRAIN 325°F, 600 PSIG, ¾" hose bib & cap
	E	ES-1M, ES-2M, ES-3M. EXTENDED HANDLE Stationary housing, for full-height vapor barrier
	H	HT. HANGING TAG with Model No., Location, Flow Rate (Maximum 7 Characters)
	L	SL. SHORT LEVER HANDLE
	V	MV-025. MANUAL AIR VENT 325°F, 400 PSIG, ¼" MNPT, Side Discharge
	X	MV-025L. MANUAL AIR VENT EXTENDED 325°F, 400 PSIG, ¼" MNPT, Side Discharge, 2¼" O.A.L.
		PTE. PRES / TEMP TEST PLUG EXTENSION 1½" O.A.L.

PROJECT _____
CONTRACTOR _____
PO/JOB NO. _____
ENGINEER _____
REPRESENTATIVE _____
DATE _____

UltraY™ Model UY

Y-Strainer

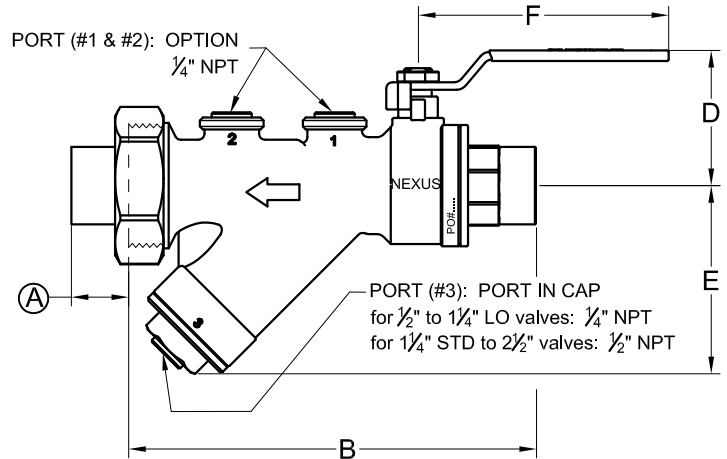
(½" thru 2½")

Coil Paks for terminal units,
hydraulic equipment.

Valve Body available in FNPT, Sweat, NexPress or NexLok

DIMENSIONS [inches]											
SIZE [inches]	LO	STD	A	B				D	E	F	FILTER AREA [sq. in.]
				F (NPT)	S (Sweat)	P (NexPress)	L (NexLok)				Cv
½		✓		3.9	4.1	4.5	3.1	1.7	1.6	1.9	2.7
¾	✓			3.9	4.2	4.6	5.3	1.7	1.6	1.9	2.7
¾		✓		4.9	5.2	5.6	3.4	1.8	2.4	3.1	7.4
1	✓			4.3	4.4	4.6	5.5	1.7	1.6	1.9	2.7
1		✓		5.1	5.3	5.6	4.0	1.8	2.4	3.1	7.4
1¼	✓			5.4	5.3	7.6	6.0	1.8	2.4	3.1	7.4
1¼		✓		6.3	6.5	8.6	-	2.5	3.5	4.3	16.7
1½		✓		6.3	6.7	11.4	-	2.5	3.5	4.3	16.7
2		✓		9.1	9.9	11.9	-	3.4	5.1	5.5	20.6
2½		✓		9.8	10.6	-	-	3.4	5.1	5.5	20.6

Cv - based on new clean filter element



TAIL PIECE OPTION	Nexus P/N	Lengths [inches]	Use with Valve Body size
 MNPT (Male NPT Thread)	TP075-050M	1.00	½, ¾ LO, 1 LO
	TP125-050M	1.04	¾ STD, 1 STD, 1¼ LO
	TP125-075M	1.16	
	TP125-100M	1.29	
	TP200-050M	1.04	1¼ STD, 1½
	TP200-075M	1.16	
	TP200-100M	1.39	
	TP200-125M	1.85	
 FNPT (Female NPT Thread)	TP200-150M	1.89	2, 2½
	TP250-100M	1.93	
	TP250-125M	1.93	
	TP250-150M	1.97	¾ STD, 1 STD, 1¼ LO
	TP250-200M	2.00	
	TP125-050F	1.00	
 SWT (Female Sweat)	TP125-075F	1.00	1¼ STD, 1½
	TP125-100F	1.20	
	TP200-100F	1.61	
	TP200-125F	1.57	2, 2½
	TP200-150F	1.18	
	TP250-125F	1.77	
 NexPress	TP250-150F	1.97	¾ STD, 1 STD, 1¼ LO
	TP250-200F	1.36	
	TP250-250F	1.74	
	TP075-050S	0.59	1¼ STD, 1½
	TP125-050S	0.60	
	TP125-075S	0.85	
 NexLok	TP125-100S	1.00	1¼ STD, 1½
	TP200-075S	1.85	
	TP200-100S	1.85	
	TP200-125S	1.85	2, 2½
	TP200-150S	1.38	
	TP250-125S	1.69	
 NexPress	TP250-150S	1.97	¾ STD, 1 STD, 1¼ LO
	TP250-200S	1.65	
	TP125-050P	1.46	
	TP125-075P	1.54	1¼ STD, 1½
	TPA125-100P	3.85	
	TPA125-125P	4.23	
 NexLok	TP200-100P	1.58	2, 2½
	TPA200-125P	3.70	
	TPA200-150P	3.63	
	TPA250-150P	4.44	¾ STD, 1 STD, 1¼ LO
	TPA250-200P	4.07	
	TP125-050L	1.03	
 NexLok	TP125-075L	1.29	1 STD (with Union Adapter)
	TP200-100L	1.66	

MATERIALS & DESIGN DATA

BODY, END PCS	HOT FORGED BRASS ASTM B283, 600 WOG, 325°F (NexPress: 200 PSIG, 250°F / NexLok: 250 PSIG, 200°F), INTERCHANGEABLE UNION END
HANDLE & NUT	ZINC PLATED
BALL	HARD CHROME PLATED BRASS / STAINLESS STEEL (optional)
BALL SEALS	TEFLON
SHAFT	BRASS / STAINLESS STEEL (optional) BLOWOUT-PROOF
SHAFT SEALS	DUAL FKM O-RINGS
UNION SEAL	FKM O-RING
CAP SEAL	FKM O-RING
FILTER SCREEN	304 STAINLESS STEEL, REMOVABLE, 20 MESH / 40 MESH (optional)

ACCESSORIES

Order Code	Part No.	Description
 B	BD-025 / BD-050	BLOWDOWN / VENT / DRAIN 325°F, 600 PSIG, ¾" hose bib & cap
 E	ES-1, ES-2, ES-3	EXTENDED HANDLE Stationary housing for full-height vapor barrier
 L	SL	SHORT LEVER HANDLE
 P	PT-025	PRES / TEMP TEST PLUG 325°F, 1000 PSIG, ¼" NPT
 V	MV-025	MANUAL AIR VENT 325°F, 400 PSIG, ¼" MNPT, Side Discharge Note: Not available for 1½" STD, 2", and 2½".
 X	MV-025L	MANUAL AIR VENT EXTENDED 325°F, 400 PSIG, ¼" MNPT, Side Discharge, 2¼" O.A.L. Note: Not available for 1½" STD, 2", and 2½".
	PTE	PRES / TEMP TEST PLUG EXTENSION 1¼" O.A.L.

ORDER DATA

Sample Part #:

UY - 100 - S - 050S - GPBN

Model
Valve Trim
UltraY Size
Fixed End
Union End
Accessory Cap Option
Port Accessories
N = NO Port #4 (Port #2 = ¼", NO ByPass)
Option Order Codes (Accessories)

PROJECT _____

CONTRACTOR _____

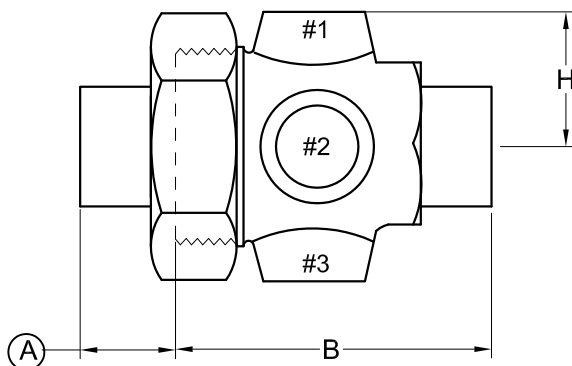
PO/JOB NO. _____

ENGINEER _____

REPRESENTATIVE _____

DATE _____

Please consult the "Ordering Guide" section in Nexus Valve Catalog
for complete part number and ordering information.



Valve Body available in FNPT, MNPT or Sweat
(½" LO available in MNPT or Sweat only & ½" STD available in MNPT only)

DIMENSIONS [inches]

SIZE [inches]	A	B			H	I.D.	WT [lbs] (Tail Pieces & Nuts not included)
		M (MNPT)	F (FNPT)	S (Sweat)			
½ LO		2.2	-	1.7	0.8	0.6	0.4
½ STD		2.7	-	-	0.9	0.6	0.7
¾		2.6	2.1	2.2	0.9	0.8	0.6
1		2.6	2.2	2.4	0.8	1.0	0.7
1¼		2.9	2.4	2.6	1.4	1.3	1.6
1½		3.0	2.5	2.7	1.4	1.6	1.8
2		3.1	2.6	2.9	1.7	2.0	2.6

MATERIALS & DESIGN DATA

BODY, END PCSHOT FORGED BRASS ASTM B283,
600 WOG, 325°F (NexPress: 200 PSIG, 250°F /
NexLok: 250 PSIG, 200°F)
INTERCHANGEABLE UNION ENDS,
¼" FNPT OPTION PORT (3 EACH)

UNION SEALFKM O-RING

ACCESSORIES

	Order Code	Part No.	Description
	☐ A	 AV-025.	AUTOMATIC AIR VENT 250°F, 150 PSIG, positive shut-off, ¼" MNPT
	☐ B	 BD-025.	BLOWDOWN / VENT / DRAIN 325°F, 600 PSIG, ¾" hose bib & cap
	☐ C	 CV-1, CV-2.	CHECK VALVE CV-1 for ½" LO; CV-2 for ½" STD, ¾" & 1"; Center Guided, Non-Slam Check
	☐ P	 PT-025.	PRES / TEMP TEST PLUG 325°F, 1000 PSIG, ¼" MNPT
	☐ V	 MV-025.	MANUAL AIR VENT 325°F, 400 PSIG, ¼" MNPT, Side Discharge
	☐ X	 MV-025L.	MANUAL AIR VENT EXTENDED 325°F, 400 PSIG, ¼" MNPT, Side Discharge, 2¼" O.A.L.
		 PTE.	PRES / TEMP TEST PLUG EXTENSION 1⅞" O.A.L.

TAIL PIECE OPTION	Nexus P/N	Lengths [inches]	Use with Valve Body size
 MNPT (Male NPT Thread)	TP075-050M	1.00	½ LO
	TP125-050M	1.04	½ STD, ¾, 1
	TP125-075M	1.16	
	TP125-100M	1.29	
	TP200-050M	1.04	1¼, 1½
	TP200-075M	1.16	
	TP200-100M	1.39	
 FNPT (Female NPT Thread)	TP200-125M	1.85	
	TP200-150M	1.89	
	TP250-100M	1.93	2
	TP250-125M	1.93	
	TP250-150M	1.97	
	TP250-200M	1.36	
	TP250-250M	1.74	
 SWT (Female Sweat)	TP125-050F	1.00	½ STD, ¾, 1
	TP125-075F	1.00	
	TP125-100F	1.20	
	TP200-100F	1.61	1¼, 1½
	TP200-125F	1.57	
	TP200-150F	1.18	
	TP250-125F	1.77	2
 NexPress	TP250-150F	1.97	
	TP250-200F	1.36	
	TP250-250F	1.74	
	TP075-050S	0.59	½ LO
	TP125-050S	0.60	½ STD, ¾, 1
	TP125-075S	0.85	
	TP125-100S	1.00	
 NexLok	TP200-075S	1.85	1¼, 1½
	TP200-100S	1.85	
	TP200-125S	1.85	
	TP200-150S	1.38	
	TP250-125S	1.69	2
	TP250-150S	1.97	
	TP250-200S	1.65	
 NexPress	TP125-050P	1.46	½ STD, ¾, 1
	TP125-075P	1.54	
	TPA125-100P	3.85	
	TPA125-125P	4.23	
 NexLok	TP200-100P	1.58	1¼, 1½
	TPA200-125P	3.70	
	TPA200-150P	3.63	
	TP125-050L	1.03	
	TP125-075L	1.29	½ STD, ¾, 1
	TP200-100L	1.66	1 (with Union Adapter)

Please consult the "Ordering Guide" section in Nexus Valve Catalog
for complete part number and ordering information.

PROJECT _____
CONTRACTOR _____
PO/JOB NO. _____
ENGINEER _____
REPRESENTATIVE _____
DATE _____



PIPING SPECIFICATION

Rev. A

Date: 5-24-16

No.	PIPE SYSTEM	SIZE	PIPE MATERIAL	CONNECTION TYPE	FITTING MATERIAL	FITTINGS					VALVES							NOTES
						UNIONS	JOINT COMPOUNDS	FLANGES	GASKETS	BOLTS AND NUTS	BALL	BUTTERFLY	CHECK	DIAPHRAGM	GATE	GLOBE	PLUG	
1	CHILLED , HEAT RECOVERY (GLYCOL), AND HEATING WATER	2" and Under	Copper, Type L, (ASTM B88)	Press	Wrought Copper (ASTM B584)	N/A	N/A	N/A	EPDM	N/A	Milwaukee BA-480B		Milwaukee 509-P2		Milwaukee 148	Milwaukee 502	14	
													MilwaukeeSilent Check 548T-P2		Apollo 101TLF-PR (threaded)	Apollo 120TLF-PR (threaded)		
													Apollo 163TLF-PR (threaded)					
		2" and Under	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Threaded	Malliable Iron, Class 150 (ASTM A47)	Acceptable	TFE Tape	Class 150; Raised Face; Forged Carbon Steel Threaded (ASTM A105)	N/A	N/A	Milwaukee BA-400s		Milwaukee 509Y					1, 14
													Milwaukee Silent Check 548T		Milwaukee 148	Milwaukee 502		
		2-1/2" to 12"	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Butt-Weld	Carbon Steel, Sch 40, Seamless, (ASTM A234-WPB)	Flanges	N/A	Class 150; Raised Face; Forged Carbon Steel Weld Neck (ASTM A105)	Garlock 2900	SAE J429 Grade 5 bolts and SAEJ5 Grade 5 Hex	Milwaukee F201CSN2	Milwaukee CL Series (Import)2-12 Figure# CL223E Lever Handle, Figure# CL323E	Milwaukee 2974A (Domestic) 2-12"		Milwaukee 2885M (Import) 2-12"	Milwaukee 2981A (Domestic), 2-10"	1, 14	
													Milwaukee 2974M (Import);		Milwaukee 2885A (Domestic) 2-12"	Milwaukee 2981M (Import) 2-10"		
												Milwaukee ML Series (Domestic) 2-12 Figure # ML233E Lever Handle; Figure ML333E Gear Operated	Milwaukee Silent Check Fig # 1800			Armstrong Circuit Balancing Valves		
		2-1/2" to 12"	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Grooved	Ductile Iron (ASTM A 536)	N/A	N/A	Flange Adapter Available	EPDM	Galvanized Carbon Steel ASTM A 183 and ASTM A 563	Gruvlok Fig # 7500		Milwaukee Silent Check Fig # 1800		Milwaukee 2885M (Import) 2-12"	Milwaukee 2981A (Domestic), 2-10"	1,2, 14	
												Gruvlok Fig # 7700	Milwaukee 2974M (Import);		Milwaukee 2885A (Domestic) 2-12"	Milwaukee 2981M (Import) 2-10"		
													Milwaukee 2974A (Domestic) 2-12"					
													Gruvlok Fig # 7800					
2	COOLING COIL DRAINS	2" and Under	Copper, Type M, (ASTM B88)	Press	Wrought Copper (ASTM B584)	N/A	N/A	N/A	EPDM	N/A	Milwaukee BA-480B		Milwaukee 509-P2		Milwaukee 148	Milwaukee 502	1	
													MilwaukeeSilent Check 548T-P2		Apollo 101TLF-PR (threaded)	Apollo 120TLF-PR (threaded)		
													Apollo 163TLF-PR (threaded)					

4	REFRIGERANT	2" and Under	Copper, Type ARC, (ASTM B280)	Socket, Brazed	Wrought Copper (ASTM B584)	N/A	Stay-Brite Solder	N/A	N/A	N/A								14
5	MAKEUP WATER; CHEMICAL FEED	2" and Under	Copper, Type L, (ASTM B88)	Press	Wrought Copper (ASTM B584)	N/A	N/A	N/A	EPDM	N/A		Milwaukee BA-480B		Milwaukee 509-P2		Milwaukee 148	Milwaukee 502	1,14
														MilwaukeeSilent Check 548T-P2		Apollo 101TLF-PR (threaded)	Apollo 120TLF-PR (threaded)	
														Apollo 163TLF-PR (threaded)				

7	RELIEF VENTS	2" and Under	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Threaded	Malliable Iron, Class 150 (ASTM A47)	Acceptable	TFE Tape	Class 150; Raised Face; Forged Carbon Steel Threaded (ASTM A105)	N/A	N/A								1, 15
		2-1/2" to 12"	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Butt-Weld	Carbon Steel, Sch 40, Seamless, (ASTM A234-WPB)	Flanges	N/A	Class 150; Raised Face; Forged Carbon Steel Weld Neck (ASTM A105)	Garlock 2900	SAE J429 Grade 5 bolts and SAEJ5 Grade 5 Hex								1, 15
8	NATURAL GAS	2 1/2" and Under	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Threaded	Malliable Iron, Class 150 (ASTM A47)	N/A	N/A	Adapter Available	EPDM	SAE J429 Grade 5 bolts and SAEJ5 Grade 5 Hex		Milwaukee 22CSOR-02-LL					Nordstrum 142	1, 16
		3" to 12"	Carbon Steel, Sch 40, Electric Resistance Weld ERW, Black (ASTM A53)	Butt-Weld	Carbon Steel, Sch 40, Seamless, (ASTM A234-WPB)	Flanges	N/A	Class 150; Raised Face; Forged Carbon Steel Weld Neck (ASTM A105)	Garlock 5500	SAE J429 Grade 5 bolts and SAEJ5 Grade 5 Hex		Apollo 80-100 Series					Nordstrum 143	1, 16
												PBV C4510-31-2236-FY-NL						

**NOTES**

1. Use flat faced flanges (ASTM A105) in raised face flange piping systems where required for mating with flat faced valves and equipment.
2. Use grooved valves for piping 6" and less or where required based on cost.
3. Only use AGS Victaulic connections for chilled water piping systems over 14". N/A
4. Use 14" and over pipe size grooved piping systems only in low risk location such as basements. N/A
5. Threaded connections allowed where required for equipment connection.
6. Medical gas fittings will be oxygen cleaned, capped and bagged.
7. The maximum operating pressure for PVC pipe is 140°F. The allowable working pressure is reduced by a de-rating factor above 73°F.
8. The maximum operating pressure for CPVC pipe is 200°F. The allowable working pressure is reduced by a de-rating factor above 73°F.
9. The maximum operating pressure for PP pipe is 200°F. The allowable working pressure is reduced by a de-rating factor above 73°F.
10. The maximum operating pressure for HDPE pipe is 140°F. The allowable working pressure is reduced by a de-rating factor above 73°F.
11. Use Solon washers where thermal cycling is a significant issue.
12. Use fire and smoke rated materials for piping in soffits.
13. Use di-electric nipples Gruvlok Figures 7088, 7089 or 7090 to address galvanic action for dissimilar materials.
14. Use silent check valves in pump discharge applications.
15. Relief valves and rupture discs, pressure regulator vents and gas pressure switch vents shall be piped full size of valve outlet to atmosphere outside building. For multiple valve installations common discharge pipe shall have cross-sectional area equal to the sum of the outlet area of the connected valves.
16. Gas piping installed in mechanical room plenums or in ceiling plenums or where concealed in inaccessible plenums and chases shall have welded joints and fittings and shall not have valves installed within the spaces.

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: August 17, 2016

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector:
Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mark Schaefer

Project No. WT 14127.01

☐

UPS

☐

Courier

☒

Email

Copies	No.	Description
1 PDF	230600M01	(Submittal No.'s) (R&B CxSRC)
		(Cannon #230600-004) - (Paric #15051-0181) – (WES #607)
		• HVAC Piping Product Data

***Submittal Review Comments**

3 inch and larger elbows shall be long radius as specified in section 230600.

c: Kelvin Patel
Kpatel@cannondesign.com

☐ Furnish as Submitted

☒ ***Furnish as Noted**

☐ Rejected

☐ Revise & Resubmit

☐ Reviewed

☐

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0181

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 08/09/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: HVAC Piping Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:		SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings		☒ Approval	☐ Approved as Submitted
☐ Letter		☐ Your Use	☐ Approved as Noted
☐ Prints		☐ As Requested	☐ Returned After Loan
☐ Change Order		☐ Review and Comment	☐ Resubmit
☐ Plans			☐ Submit
☐ Samples		SENT VIA:	☐ Returned
☐ Specifications		☐ Attached	☐ Returned for Corrections
☒ Other: Product Data		☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		230600-004	1		08/09/2016	HVAC Piping Product Data	Submitted

NOTES:

CC:

Signed: _____
Devin Gates



Mechanical

LETTER OF TRANSMITTAL

TO: Paric Corporation

77 West Port Plaza #250

St. Louis, MO 63146

ATTN: Jason Szachnieski, Devin Gates

DATE: 8/8/16

JOB #: 5768

RE: Webster ISB

We are sending you

☒

Shop drawings

☐ Attached

☐ Prints

☐ Change order

☐ Under separate cover

☐ Plans

☐ Other

☐ Samples

☐ Specifications

☐ Copy of letter

COPIES	DATE	NO.	DESCRIPTION
1	8/8/16	230600	Piping

These are transmitted as checked below:

☐ For signature

☐ For your use

☐ As requested

☐ For bids due

☒

For review and comment

☐ Approved as submitted

☐ Approved as noted

☐ Returned for corrections

☐ Prints returned after loan to us

☐ Other

☐ Resubmit

☒ Submit

☐ Return

☐ copies for approval

☐ copies for distribution

☐ corrected prints

Remarks: Please return by 8/18/16

COPY TO: file

SIGNED:

Alex Chambers



Mechanical

Webster University ISB Webster Groves, MO

Submittal #:

230600

Submittal Description:

Piping

Return By:

8/18/16

Please Note: To avoid scheduling delays and equipment release delays, please submit by the "Return By" date.

CHECKED BY:			
DESIGNER:		ENGINEER:	
☒	NO EXCEPTION TAKEN	☐	MAKE CORRECTIONS NOTED
☐	SUBMIT SPECIFIED ITEM	☐	REVISE AND RESUBMIT
☐	REJECTED	☐	
Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Equipment supplier is responsible for: dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and satisfactory performance of his work.			
		Job #:	5768
		Date:	8/8/16
		By:	ARC