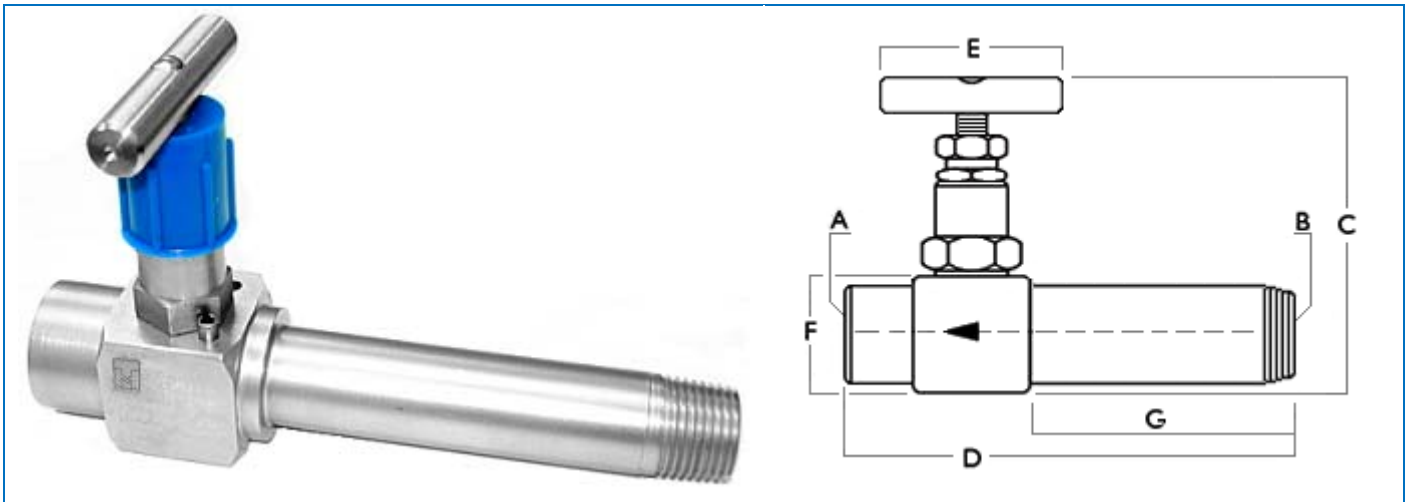




# Needle Valves 400LMF Series

## Male Thread to Female Thread – Long – 1 Way



ALSO AVAILABLE WITH END CONNECTIONS: TUBE O.D. OR SW AND FOR PANEL MOUNTING.

PART NUMBER	SS 316	404 LMF 316	404 LMFB 316	406 LMF 316	406 LMFB 316	408 LMF 316	408 LMFB 316	412 LMF 316	412 LMFB 316	
	CARBON	404 LMF S	404 LMFB S	406 LMF S	406 LMFB S	408 LMF S	408 LMFB S	412 LMF S	412 LMFB S	
END CONNECTION	INLET (A)	1/4" NPT MALE	1/4" BSP MALE	3/8" NPT MALE	3/8" BSP MALE	1/2" NPT MALE	1/2" BSP MALE	3/4" NPT MALE	3/4" BSP MALE	
	OUTLET (B)	1/4" NPT FEMALE	1/4" BSP FEMALE	3/8" NPT FEMALE	3/8" BSP FEMALE	1/2" NPT FEMALE	1/2" BSP FEMALE	3/4" NPT FEMALE	3/4" BSP FEMALE	
DIMENSIONS*	C	OPEN: 91,00 CLOSED: 88,50							OPEN: 98,00 CLOSED: 94,00	
	D	155,00							157,00	
	E	55,00							55,00	
	F	31,75							38,10	
	G	100,00							100,00	

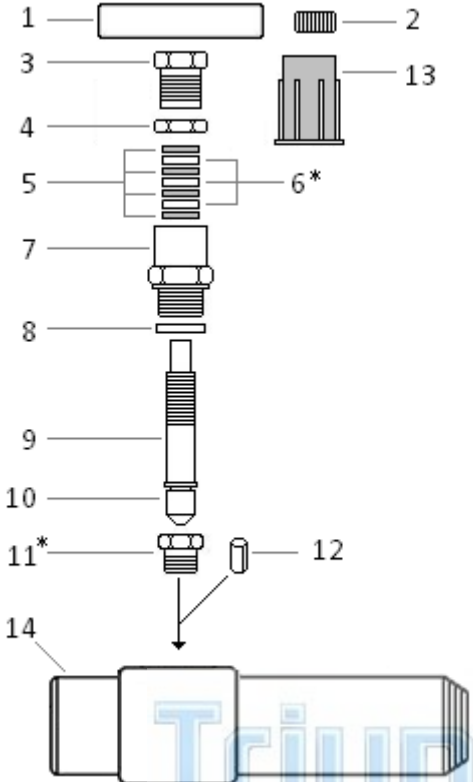
\* Dimensions are for reference only and are subject to change.

OPTIONALS & KEY FEATURES	
VARIOUS STANDARD END-CONNECTIONS FROM 1/8" TO 1"	17-4 PH STAINLESS STEEL NON-ROTATING STEM TIP
CHOICE OF 316 STAINLESS STEEL (CF8M) OR CARBON (WCB)	NPT THREADS OR BSP THREADS – MM OR INCHES
TEFLON® PACKING OR GRAFOIL® PACKING	MAXIMUM OPERATING PRESSURE: 6.500 PSI
STRAIGHT AND ANGLE PATTERNS	JOINT IS LOCATED ABOVE THE PACKING, PROTECTED FROM SYSTEM

# Technical Standards



Nº	STANDARDS – RAW MATERIAL		400 LMF
	DESCRIPTION		
	SS 316 (316)	CARBON (S)	
1	ROUND BAR (316)	ROUND BAR (S)	
	ASTM A 276	SAE 1020 / 1045	
2	SCREW ALLEN (304)	SCREW ALLEN (S)	
	DIN 915	DIN 915	
3	HEX BAR (316)	HEX BAR (S)	
	ASTM A 276	SAE 1020 / 1045	
4	HEX BAR (316)	HEX BAR (S)	
	ASTM A 276	SAE 1020 / 1045	
5	WASHER (316)		
	ASTM A 167		
6*	PTFE 850A (TEFLON®)		
	ASTM D 4894		
	GRAFKOTE (GRAFOIL®)		
	ASTM F 1315		
7	HEX BAR (316)	HEX BAR (S)	
	ASTM A 276	SAE 1020 / 1045	
8	PTFE 850A (TEFLON®)		
	ASTM D 4894		
9	ROUND BAR (316)		
	ASTM A 276		
10	ROUND BAR ARMCO 17-4 PH		
	ASTM A 564 TP 630		
11*	HEX BAR(316)		
	ASTM A 276		
12	SPRING PIN (304)	SPRING PIN (S)	
	DIN 1481	DIN 1481	
13	DUST CAP (PEBD 30%)		
	API SPECIFICATION 5CT/ISO 11960		
14	SQUARE BAR (316)	SQUARE BAR (S)	
	ASTM A 276	SAE 1020 / 1045	



\*OPTIONALS

VALVES BODIES TREATMENT			
COMPONENT	TREATMENT		STANDARD
ALL (EXTERNALS)	SS 316 (CF8M)	GLASS BEAD BLASTING	TRIUNION'S STANDARD
	CARBON (WCB)	CHROMATE NON-HEXAVALENT (COLORLESS)	

OXYGEN CLEANING			
COMPONENT	TREATMENT		STANDARD
ALL	SS 316 (CF8M)	ROCOL® FLUOR CLEAN OR SIMILAR	ASTM G 93
	CARBON (WCB)		

PRESSURE TESTING			
PRODUCTS	TESTING PROCEDURES		STANDARD
VALVES	SHELL	SEAT	MSS SP 82 BS EN 12266
	9.750 PSI – 15 SEC ROOM TEMPERATURE	7.150 PSI – 15 SEC ROOM TEMPERATURE	



# Technical Information

## Valves 400 Series – 1 Way

TECHNICAL DATA		SS 316	CARBON	
S T A N D A R D S	CONSTRUCTION		BODY: ASME B 16.34	
			END CONNECTION: ASME B 16.11	
	RAW MATERIAL (ASME B 31.1)	BODY (OPTIONAL)	SS 316 - CASTING (CF8M) – ASTM A 351	CARBON - CASTING (WCB) – ASTM A 216
			BAR ASTM A 276 TP 316	BAR SAE 1020 / 1045
		NEEDLE	ARMCO 17-4 PH – ASTM A 564	
		PACKING (OPTIONAL)	GASKETS: CHOICE OF TEFLON® (POLYACETAL) OU GRAFOIL®	
	INTERNAL	ALL SS 316 - ASTM A 276		
CONSTRUCTIVE FORM OF THE STEM		SINGLE PIECE WITHOUT WELDING		
HANDLE		T-BAR SS 304 / SS 316 Ø – ASTM A 276	T-BAR CARBON Ø – SAE 1020 / 1045	
ACTUATOR		DIRECT BY HANDLE		
TYPE		NEEDLE TYPE GLOBE VALVE		
SEAT		METAL SEAL BETWEEN BODY AND BONNET REPLACEABLE		
NEEDLE TIP		NON ROTATING TIP – SELF CENTERING AND ANTI-GALLING		
END CONNECTIONS FOR TUBE O.D.		TWO FERRULES SYSTEM		
WORKING PRESSURE		6.500 PSI (MAXIMUM)		
ORIFICE SIZE / CV		Ø 4 MM / CV 0.36 (MAXIMUM)		
BURST PRESSURE		DESIGNED WITH 4 : 1		
TEMPERATURE RANGE (OPTIONAL PACKING)		TEFLON® = (-) 50° C A + 200° C GRAFOIL® = (-) 50° C A + 600° C		
TESTING PROCEDURES		STANDARDS BS EN 12266-1:2003 / BS EN 1266-2:2003 / MSS-SP-82  100% FACTORY TESTED 9.750 PSI – 15 SEC – ROOM TEMPERATURE		
<b>KEY FEATURES</b>				
HIGH PRESSURE CAPABILITY, 316 STAINLESS STEEL OR CARBON VALVE MAXIMUM WORKING PRESSURE IS 6.500 PSI (448 BAR) AT ROOM TEMPERATURE.				
PACKING STEM SEATS BELOW STEM THREADS, TO PROTECT STEM THREADS FROM ABRASIVE FLUIDS.				
REPAIR SEAT KIT ON AVAILABLE TO EXCHANGE				
100% FACTORY TESTED, ALL VALVES HAVE NEEDLE NON-ROTATING HARDNED (17-4 PH) TIPS AS STANDARD.				
DIFERENT TYPE OF THE END CONNECTIONS: DOUBLE FERRULE TYPE, SW, MALE, FEMALE, NPT OR BSP THREADS, INCHES AND MM.				