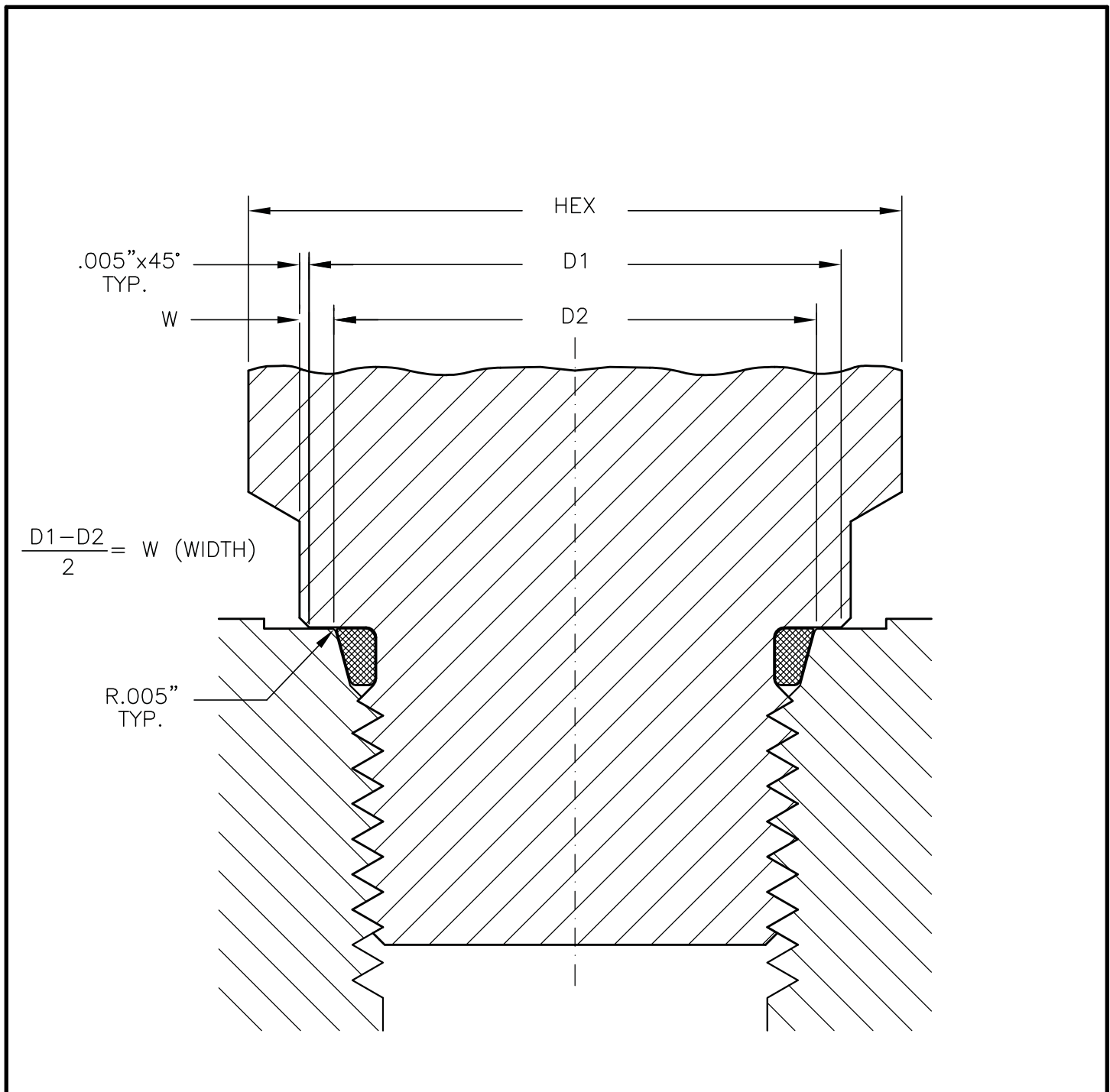
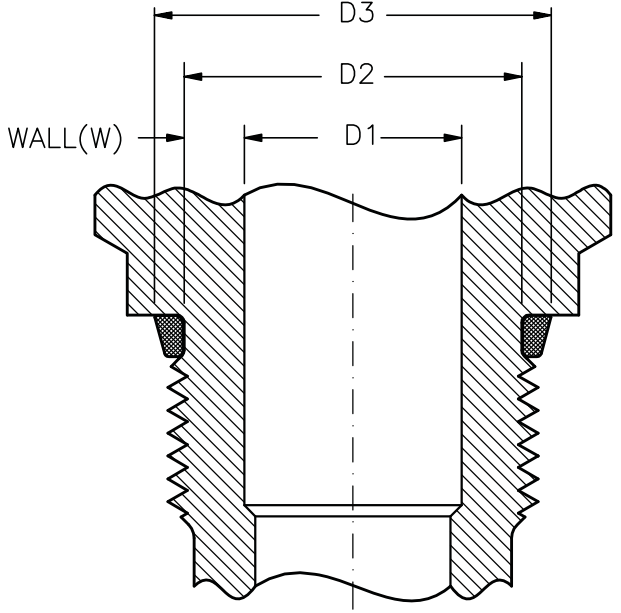
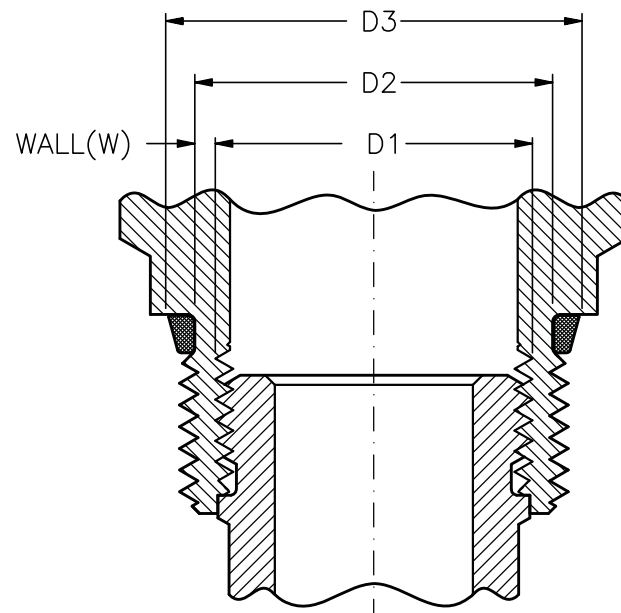


# Cartridge & Cavity Engagement



SERIES	MFG	HEX		D1		D2		W		AREA
		INCH	MM	DIA	AREA	DIA	AREA	WIDTH	AREA	%
8	OTHERS	.870	22,1	.870"	.594"	.813"	.519"	.029"	.075"	100
	CCC	1.000	25,4	.995"	.778"	.813"	.519"	.091"	.259"	345
10	OTHERS	1.000	25,4	.990"	.770"	.954"	.715"	.018"	.055"	100
	CCC	1.062	27,0	1.052"	.870"	.954"	.715"	.049"	.155"	282
12	OTHERS	1.250	31,8	1.240"	1.208"	1.158"	1.053"	.041"	.155"	100
	CCC	1.312	33,3	1.302"	1.331"	1.158"	1.053"	.072"	.278"	180

# Cartridge & Cavity Engagement

CCC UNIBODY CONSTRUCTION (10 SERIES SHOWN)	TYPICAL TWO PIECE CONSTRUCTION
	
$\frac{D2 - D1}{2} = \frac{.770" - .590"}{2} = .090" \text{ WALL(W)}$	$\frac{D2 - D1}{2} = \frac{.770" - .688"}{2} = .041" \text{ WALL(W)}$
$\text{AREA}(D2) - \text{AREA}(D1) = \text{AREA}(W)$ $.466"{}^2 - .274"{}^2 = .192"{}^2$	$\text{AREA}(D2) - \text{AREA}(D1) = \text{AREA}(W)$ $.466"{}^2 - .372"{}^2 = .094"{}^2$
$\text{AREA}(W) \times \text{TENSILE} = \text{STRENGTH}$ $.192"{}^2 \times 70,000 \text{ PSI} = 13,440 \text{ LB}$	$\text{AREA}(W) \times \text{TENSILE} = \text{STRENGTH}$ $.094"{}^2 \times 70,000 \text{ PSI} = 6,580 \text{ LB}$
$D3 = .942" \text{ DIA} = .697"{}^2 \text{ AREA}(D3)$	$D3 = .942" \text{ DIA} = .697"{}^2 \text{ AREA}(D3)$
$\text{AREA}(D3) \times \text{PRESSURE} = \text{LOAD}$ $.697"{}^2 \times 5,000 \text{ PSI} = 3,485 \text{ LB}$	$\text{AREA}(D3) \times \text{PRESSURE} = \text{LOAD}$ $.697"{}^2 \times 5,000 \text{ PSI} = 3,485 \text{ LB}$
$\text{STRENGTH} \div \text{LOAD} = \text{SAFETY FACTOR}$ $13,440 \text{ LB} \div 3,485 \text{ LB} = 3.86$	$\text{STRENGTH} \div \text{LOAD} = \text{SAFETY FACTOR}$ $6,580 \text{ LB} \div 3,485 \text{ LB} = 1.89$
<p>3.86 TO 1 SAFETY FACTOR <b>@ 5,000 PSI</b></p>	<p>1.89 TO 1 SAFETY FACTOR <b>@ 5,000 PSI</b></p>