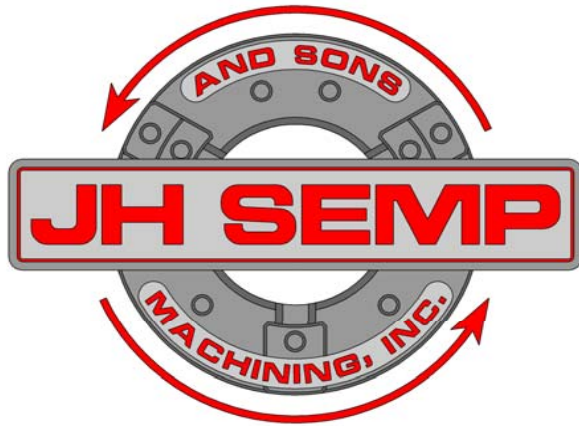


**J.H. SEMP AND SONS,
MACHINING, INC.**

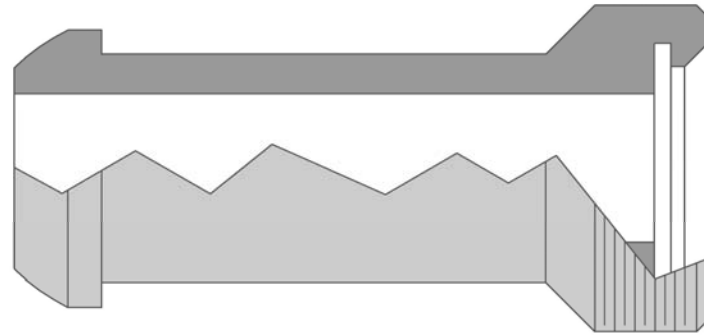
**790 NORTH NINTH AVENUE
BRIGHTON, COLORADO 80603
PHONE: (303)659-8480
FAX: (303)659-8268
WWW.SEMPANDSONS.COM**

**HIGH-PRESSURE WELL
STIMULATION
COMPONENTS**

CHANGE OVER



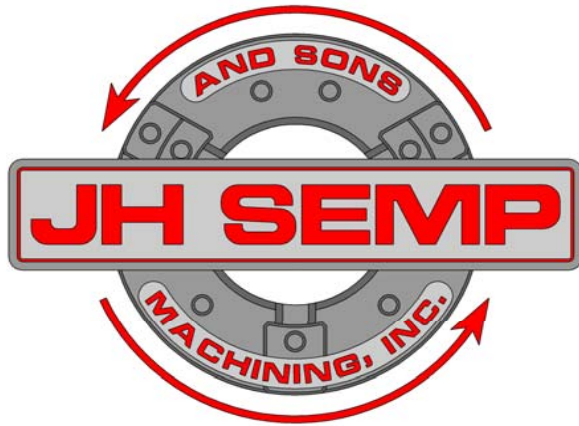
A



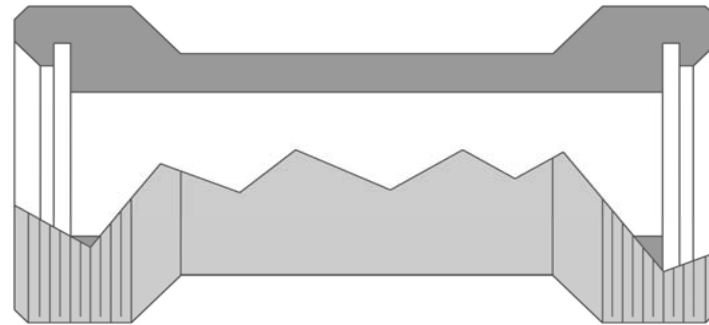
B

MALE-FEMALE CHANGEOVER

		CONNECTION AND SIZE (A)					
		1" - 1502	1 ½" - 1502	2" - 1502	3" - 1002	3" - 1502	4" - 602
CONNECTION AND SIZE (B)	PART NUMBER						
1" - 1502	30-105-105-0	30-115-105-0	30-215-105-0	30-310-105-0	30-315-105-0	30-406-105-0	30-410-105-0
1 ½" - 1502	30-105-115-0	30-115-115-0	30-215-115-0	30-310-115-0	30-315-115-0	30-406-115-0	30-410-115-0
2" - 1502	30-105-215-0	30-115-215-0	30-215-215-0	30-310-215-0	30-315-215-0	30-406-215-0	30-410-215-0
3" - 1002	30-105-310-0	30-115-310-0	30-215-310-0	30-310-310-0	30-315-310-0	30-406-310-0	30-410-310-0
3" - 1502	30-105-315-0	30-115-315-0	30-215-315-0	30-310-315-0	30-315-315-0	30-406-315-0	30-410-315-0
4" - 602	30-105-406-0	30-115-406-0	30-215-406-0	30-310-406-0	30-315-406-0	30-406-406-0	30-410-406-0
4" - 1002	30-105-410-0	30-115-410-0	30-215-410-0	30-310-410-0	30-315-410-0	30-406-410-0	30-410-410-0



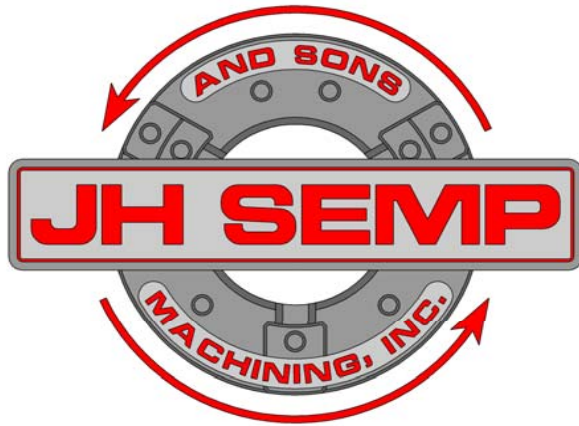
A



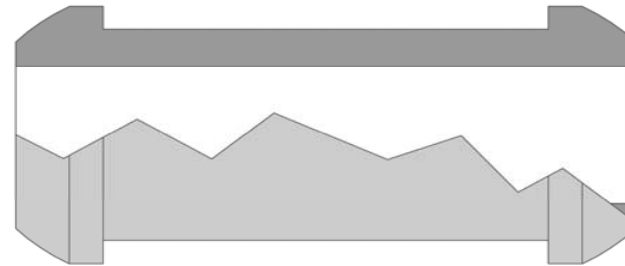
B

FEMALE-FEMALE CHANGEOVER

		CONNECTION AND SIZE (A)					
		1" - 1502	1 ½" - 1502	2" - 1502	3" - 1002	3" - 1502	4" - 602
CONNECTION AND SIZE (B)	PART NUMBER						
1" - 1502	31-105-105-1	N/A	N/A	N/A	N/A	N/A	N/A
1 ½" - 1502	31-105-115-1	31-115-115-1	N/A	N/A	N/A	N/A	N/A
2" - 1502	31-105-215-1	31-115-215-1	31-215-215-1	N/A	N/A	N/A	N/A
3" - 1002	31-105-310-1	31-115-310-1	31-215-310-1	31-310-310-1	N/A	N/A	N/A
3" - 1502	31-105-315-1	31-115-315-1	31-215-315-1	31-310-315-1	31-315-315-1	N/A	N/A
4" - 602	31-105-406-1	31-115-406-1	31-215-406-1	31-310-406-1	31-315-406-1	31-406-406-1	N/A
4" - 1002	31-105-410-1	31-115-410-1	31-215-410-1	31-310-410-1	31-315-410-1	31-406-410-1	31-410-410-1



A



B

MALE-MALE CHANGEOVER

		CONNECTION AND SIZE (A)					
		1" - 1502	1 ½" - 1502	2" - 1502	3" - 1002	3" - 1502	4" - 602
CONNECTION AND SIZE (B)	PART NUMBER						
1" - 1502	32-105-105-2	N/A	N/A	N/A	N/A	N/A	N/A
1 ½" - 1502	32-105-115-2	32-115-115-2	N/A	N/A	N/A	N/A	N/A
2" - 1502	32-105-215-2	32-115-215-2	32-215-215-2	N/A	N/A	N/A	N/A
3" - 1002	32-105-310-2	32-115-310-2	32-215-310-2	32-310-310-2	N/A	N/A	N/A
3" - 1502	32-105-315-2	32-115-315-2	32-215-315-2	32-310-315-2	32-315-315-2	N/A	N/A
4" - 602	32-105-406-2	32-115-406-2	32-215-406-2	32-310-406-2	32-315-406-2	32-406-406-2	N/A
4" - 1002	32-105-410-2	32-115-410-2	32-215-410-2	32-310-410-2	32-315-410-2	32-406-410-2	32-410-410-2