

T-DRILL

PRODUCTIVITY AS A PRODUCT.

NEW! Industry 4.0 ready



COLLARING MACHINE

for producing T-outlets on both straight and bent tubes

S-56

S-56 COLLARING MACHINE

T-DRILL S-56 is a highly effective collaring machine for producing T-outlets for brazed and welded joints. The machine is designed for both straight and bent tubes. The **S-56** produces quality collars up to 54 mm (O.D. 2 1/8") with round pilot hole, and 60,3 mm (O.D. 2 1/4") with an elliptical pilot hole. It is ideal for producing collars in steel tubes, but also suitable for all malleable materials (steel, stainless steel, aluminum, copper & copper-nickel).

Being an Industry 4.0 ready machine utilizing the latest technology, the **S-56** is very versatile and easily customized to fit specific customer needs. The machine is easy to program and use, featuring user-friendly GUI Interface with color touch panel, adjustable machining parameters, and fine-tuning of motion profiles. A wide range of feeding tables and automated systems are available for improved manifold production efficiency. (*)



S-56 APPLICATIONS

STAINLESS PROCESS PIPES

Process piping in stainless steel frequently results in a need for multiple outlets in a manifold. There is no better way to manufacture such a manifold than the **T-DRILL** process. By eliminating two welded joints, the system minimizes costs and increases profit while offering improved quality.

The **S-56** offers great advantages in the following industries:

- Food & Dairy industry
- Pharmaceutical industry
- Chemical industry
- Brewery industry
- Fire protection (sprinkler systems)

HVAC INDUSTRY

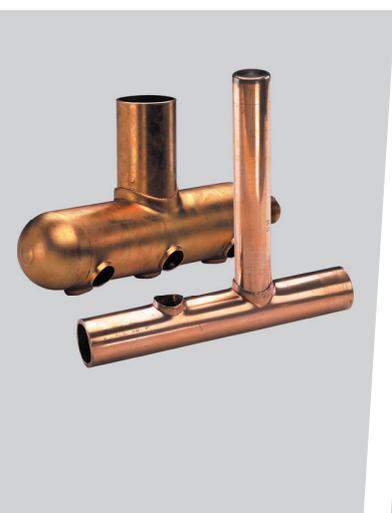
In the HVAC industry, **T-DRILL** machines are typically used in the manufacture of tubular components found in air conditioning/ refrigeration, heat pumps, heat recovery and heat exchanger manufacturing. The **S-56** is well suited for these applications and many more – offering the most reliable tube joints of top quality.

AUTOMOTIVE INDUSTRY

T-DRILL's reliable T-joining has a vital importance for automotive tube applications, because every vehicle is subject to severe vibrations. As **T-DRILL**'s extruded outlets are formed outside of the main run tube, it also minimizes the flow restrictions.

The **S-56** is ideal for efficient fabrication of the following:

- Fuel rail and high pressure diesel components
- Engine a/c systems
- Exhaust cross-over applications
- Vapor recovery systems



THE T-DRILL PROCESS

The T-DRILL S-56 collaring process is fully automated and drilling & trimming process optimized. The specially designed S-56 collaring heads enables three types of process:

1. Drilling/Collaring/Trimming - Used for butt weld method where branch tube is put on top of collar.
2. Elliptical pilot hole - Used for butt weld method. Elliptical pilot hole is done beforehand with laser, plasma, milling or with punching machine. Enables 1:1 collaring.
3. Drilling/Collaring - Used for lap joint method where branch tube is put inside of collar.



(* ACCESSORIES & OPTIONS

1. S-56 AFT - Automatic Feed Table for max. tube length 6 m / 20 ft
2. S-56 AFT with loading & unloading
3. S-56 RBT - machine can be attached to robot due to stronger bearings and construction
4. S-56 MFT - Manual Feed Table for max. tube length 8 m / 26.25 ft
5. S-56 TBC - Tube Branching Center for max. tube length 6 m / 20 ft



Technical data

Collaring range (Drilling/collaring/trimming)	Collaring range (Elliptical pilot hole)	Collaring range (Drilling/collaring)	Materials for work piece	Diameter of run tube	Compressed air supply
O.D. Ø12-58 mm (½"-2 ¼")	O.D. Ø17,2-60,3 mm (¾"-2 ¼")	I.D. Ø6-54 mm (¼"-2 ½")	Fe, Stainless Steel, Al, Cu, CuNi	O.D. Ø8-114,3 mm (5/16"-4 ½")	6 bar 87 psi
Air consumption (basic machine only)	Rated power	Fuses	Supply voltage	Machine dimension H x W x D	Machine weight
55 l/min 14.5 GPM	4 kW	16 A	400 V / 50 Hz, 3-phase Optionally also other voltages	1366 x 800 x 2008 mm 54" x 31" x 79"	536 kg 1179 lbs

The information included in this brochure is subject to revision without notice.

Capacity | Max wall thicknesses

Run tube outside diameter	Collar outside diameter												Collar outside diameter								Collar inside diameter																																					
	Drilling/Collaring/Trimming												Collaring/Trimming Elliptical pilot hole								Drilling/Collaring																																					
mm	10	12	13,7	17,2	19,05	21,3	26,9	33,7	42,4	48,3	54	58	O.D.	¾"	7/8"	1"	1 ¼"	1 ½"	1 ¾"	2 ¼"	mm	17,2	21,3	26,9	33,7	42,4	48,3	60,3	O.D.	¾"	7/8"	1"	1 ¼"	1 ½"	1 ¾"	2 ¼"	mm	6	8	10	12	15	18	22	28	35	54	O.D.	¼"	5/16"	3/8"	½"	5/8"	¾"	7/8"	1 1/8"	1 3/8"	2 1/8"
26,9 1"	1,0	1,0	1,0										.040	.040	.040						21,3 7/8"	0,8	0,8						.030	.030							8 5/16"	0,5	0,5									.020	.020									
33,7 1 ¼"	1,0	1,0	1,0	1,4	1,4								.040	.040	.040	.055	.055				26,9 1"	1,0	1,0	1,0					.040	.040	.040						10 3/8"	0,8	0,8	1,0								.030	.030	.040								
42,4 1 ½"	1,0	1,0	1,0	1,6	1,6	1,6							.040	.040	.040	.063	.063	.063			33,7 1 ¼"	1,0	1,24	1,24	1,24				.040	.049	.049	.049					12 ½"	0,8	1,0	1,0	1,0							.030	.040	.040	.040							
48,3 1 ¾"	1,0	1,0	1,0	1,6	1,6	1,6	1,6						.040	.040	.040	.063	.063	.063			42,4 1 ½"	1,0	1,24	1,65	1,65	1,65			.040	.049	.065	.065	.065				15 5/8"	0,8	1,0	1,0	1,0	1,2						.030	.040	.040	.040	.045						
54 2"	1,0	1,0	1,0	1,6	1,6	1,6	1,6	1,6					.040	.040	.040	.063	.063	.063	.063		48,3 1 ¾"	1,0	1,65	1,65	1,65	1,65	1,65		.040	.065	.065	.065	.065	.065			18 ¾"	0,8	1,0	1,0	1,0	1,2	1,2					.030	.040	.040	.040	.045	.045					
58 2 ¼"	1,0	1,0	1,0	1,6	1,6	1,6	1,6	1,6					.040	.040	.040	.063	.063	.063	.063		60,3 2 ¼"	1,0	1,65	1,65	2,11	2,11	2,11	1,65	.040	.065	.065	.083	.083	.083	.065		22 7/8"	0,8	1,0	1,2	1,2	1,5	1,5	1,5	1,5			.030	.040	.045	.045	.060	.060	.060	.060			
60,3 2 ¼"	1,0	1,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0				.040	.040	.040	.079	.079	.079	.079		76,1 3"	1,24	1,65	2,11	2,11	2,11	2,11	2,11	.049	.065	.083	.083	.083	.083	.083		28 1 1/8"	0,8	1,0	1,2	1,2	1,5	1,5	2,0	1,5			.030	.040	.045	.045	.060	.060	.080	.060			
73 3"	1,0	1,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0			.040	.040	.040	.079	.079	.079	.079	.079	88,9 3 ½"	1,24	1,65	2,11	2,11	2,11	2,11	2,11	.049	.065	.083	.083	.083	.083	.083		35 1 3/8"	0,8	1,0	1,2	1,2	1,5	1,5	2,0	2,0	1,5		.030	.040	.045	.045	.060	.060	.080	.080	.060		
114,3 4 ½"	1,0	1,0	1,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	.040	.040	.040	.079	.079	.079	.079	.079	101,6 4"	1,24	1,65	2,11	2,11	2,11	2,11	2,11	.049	.065	.083	.083	.083	.083	.083		54 2 1/8"	0,8	1,0	1,2	1,2	1,5	1,5	2,0	2,0	2,0	2,0	.030	.040	.045	.045	.060	.060	.080	.080	.080	.080	
																					114,3 4 ½"	1,24	1,65	2,11	2,11	2,11	2,11	2,11	.049	.065	.083	.083	.083	.083	.083		79 3 1/8"	0,8	1,0	1,2	1,2	1,5	1,5	2,0	2,0	2,5	2,0	.030	.040	.045	.045	.060	.060	.080	.080	.100	.080	

DO IT WITH T-DRILL Cut costs – Improve quality – Increase profit

- No T-fittings
- No costly inventories
- Less tube cutting

- Only one welded/brazed joint
- Minimum inspection cost
- Tee ratio variation flexibility

- Easier welding (flat outlet)
- Smaller chance of leakage
- Optimized flow characteristics

MANUFACTURER:

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