



Make better connections!

Tube assembly

Material combinations

Select suitable cutting ring fitting

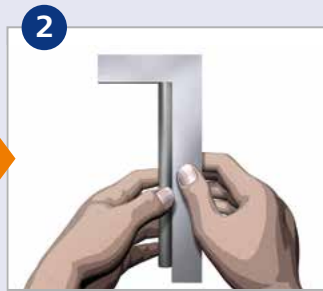


Tube material	Fitting body	Assembly instructions
Steel	Steel (LL=SDR-Ring)	
Stainless Steel	Stainless Steel	Pre-assembly by machine or hardened tool required
Copper	Brass / Stainless Steel	
Plastic e.g. Polyamide	Steel, Brass, Stainless Steel	Support sleeve ESH required Check assembly devices for suitability
Stainless Steel	Stainless Steel	Stainless Steel PDR must be used Pre-assembly by machine or hardened tool required

Tube preparation



- Cut and deburr thoroughly
 - Note minimum lengths of straight tube ends (shown in table)



- Cut tube squarely
 - max +/- 1° deviation
 - **Attention!** Do not use pipe cutters

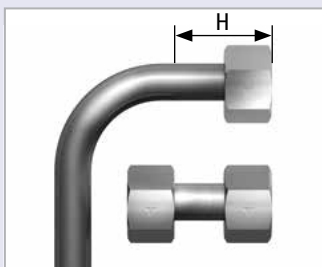


- ensure roundness of tube when sawing or bending
 - Marks or scratches might cause leakages
 - thin walled as well as tubes made from softer alloys are particularly sensitive



- Remove internal and external burrs
 - max. chamfer 0.2 mm x 45°
 - Chamfers might damage seals or cause severe damages within the hydraulic system

Bending lengths



- Minimum lengths of straight tube ends
- $H = 2 \times \text{nut length}$
- Use swivel union EDKV instead of short tubes

minimum lengths of straight tubeends

		Series L									
Tube O.D.		06	08	10	12	15	18	22	28	35	42
L min		39	39	42	42	45	49	53	53	60	60
		Series S									
Tube O.D.		06	08	10	12	14	16	20	25	30	38
L min		44	44	47	47	54	54	59	68	73	82



Make better connections!

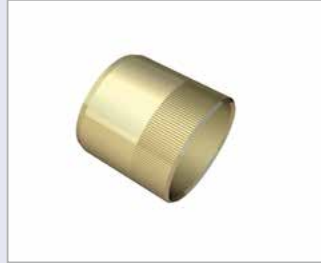
Tube preparation

Tube preparation for thin walled tubes



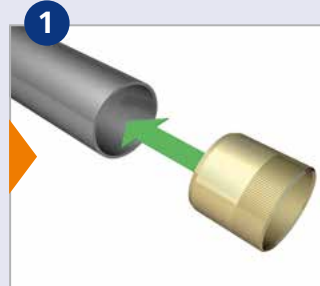
Tube insert (ESH)

- Support sleeve ESH for plastic tubes



Support sleeves (VSH)

- Support sleeve VSH for thin wall or soft metal tubes



1 Insert support sleeve like shown



2 Drive VSH into tube-end

VSH selection chart for Volz cutting ring

For steel tubes material ST 37.4
and for stainless steel tubes material 1.4571 and 1.4541

Tube O.D.	4	5	6	8	10	12	14	15	16	18	20	22	25	28	30	35	38	42	
3,0																			
2,5																			
2,0																			
1,5																			
1,0																			
0,75																			

- Support sleeve required for heavily loaded lines (vibrations)
- Support sleeve required

VSH selection chart

For soft metal tubes (e. g. copper)

Tube O.D.	4	5	6	8	10	12	14	15	16	18	20	22	25	28	30	35	38	42	
3,5																			
3,0																			
2,5																			
2,0																			
1,5																			
1,0																			
0,75																			
0,5																			