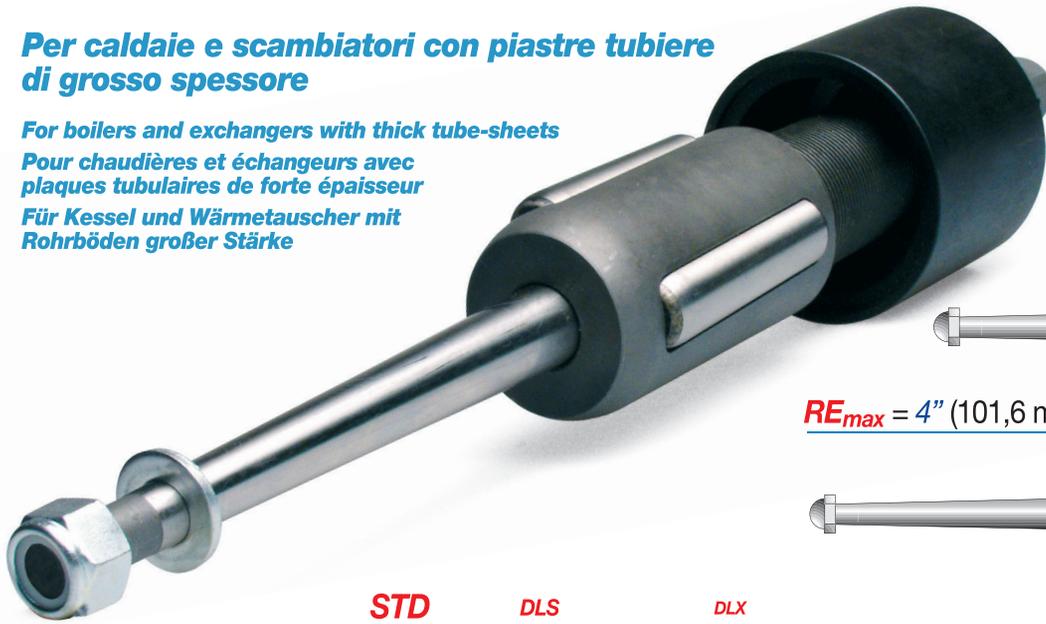


Per caldaie e scambiatori con piastre tubiere di grosso spessore

For boilers and exchangers with thick tube-sheets

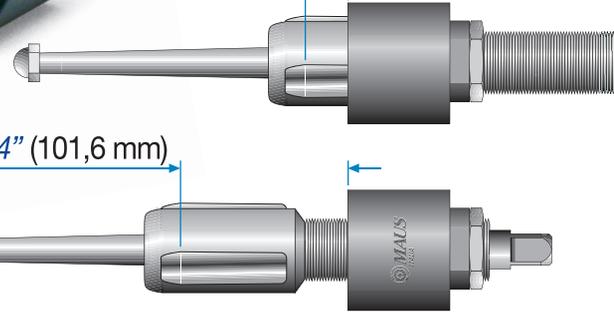
Pour chaudières et échangeurs avec plaques tubulaires de forte épaisseur

Für Kessel und Wärmetauscher mit Rohrböden großer Stärke

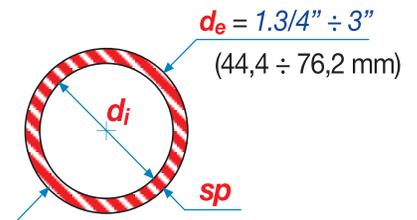


$RE_{min} = 1'' (25,4 \text{ mm})$

$RE_{max} = 4'' (101,6 \text{ mm})$



Rulli Rolls Galets Rollen	L_t		STD L_u		DLS L_d		DLX L_x	
	inches	mm	inches	mm	inches	mm	inches	mm
17/A ÷ 21	2.441	62,0	2.165	55,0	1.890	48,0	1.654 ÷ 1.969	42,0 ÷ 50,0
22 ÷ 33	2.677	68,0	2.401	61,0	2.126	54,0	1.890 ÷ 2.205	48,0 ÷ 56,0



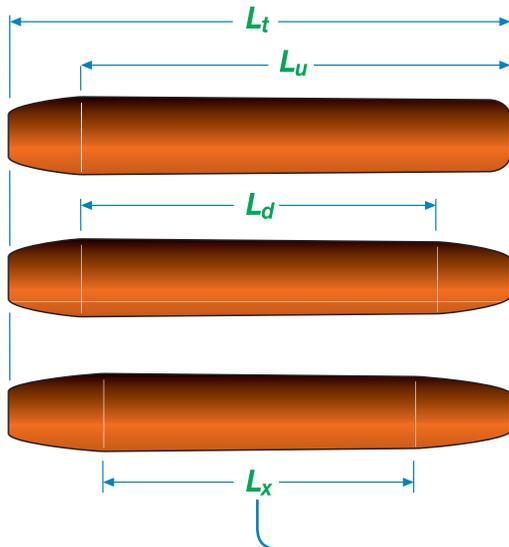
Codice d'esempio per ordinazione mandrini

Sample code for ordering tube expanders
Code d'exemple pour commande dudgeons
Bestellnr. Bestellbeispiel Rohrwalze

$de 2'' - 12 \text{ B.W.G.}$

Testa di battuta

Thrust collar
Tête de butée
Anschlagkopf

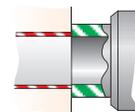


STD → R41.#-21/A

DLS → R41.#-21/A-DLS

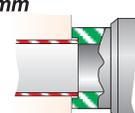
DLX → R41.#-21/A-DLX-Lx

a battuta piana
with plane shoulder
a butée plane
mit flachem Anschlag



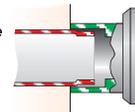
V = 0

con incavo a 3 mm
with 3 mm recess
avec entaille à 3 mm
mit 3 mm Eindrehung



V = 3 mm
(0.118")

con incavo profondo
with deep recess
avec entaille profonde
mit tiefer Eindrehung



17/A ÷ 21
V = 30 mm
22 ÷ 33
V = 35 mm
(1.181")
(1.378")

Tubo
Tube
Tube
Rohr

de inches mm	sp		di		
	B.W.G.	inches	mm	inches	mm
1.3/4" (44,4)	8	0.165	4,19	1.420	36,0
	9	0.148	3,76	1.454	36,9
	10	0.134	3,40	1.482	37,6
	11	0.120	3,05	1.510	38,3
	12	0.109	2,77	1.532	38,8
	13	0.095	2,41	1.560	39,6
	14	0.083	2,11	1.584	40,2

Espansione
Expansion
Expansion
Walzbereich

inches	mm
1.378 ÷ 1.555	34,5 ÷ 39,5
1.417 ÷ 1.614	36,0 ÷ 41,0
1.456 ÷ 1.653	37,0 ÷ 42,0
1.496 ÷ 1.693	38,0 ÷ 43,0

Mandrino
Tube expander
Dudgeon
Rohrwalzen

Cod.
R41.#-17/A
R41.#-18
R41.#-18/A
R41.#-19

Rulli
Rolls
Galets
Rollen

Cod.
17/A-E
18-E
18/A-E
19-E

Spina
Mandrel
Broche
Dorn

Cod.
3-17/A÷21

Mandrinatrici consigliate

Suggested rolling machines
Dudgeonneuses conseillées
Empfohlene Rohrreinwalzanlagen

Elettriche
Electrical
Electriques
elektrisch



Masterrol 180
Macrol 130

Consigliate
Suggested
Conseillées
Empfehlung

Possibili
Possible
Possibles
Variationsmöglichkeiten

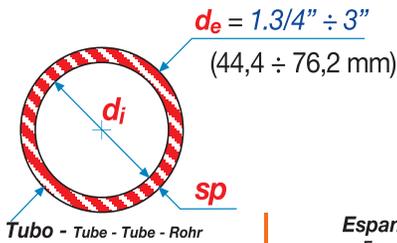
R/41

Mandrinatrici consigliate

Suggested rolling machines
Dudgeonneuses conseillées
Empfohlene Rohreinwalzanlagen

de inches mm	Tubo - Tube - Tube - Rohr				Espansione		Mandrino	Rulli	Spina	inches mm	Mandrinatrici consigliate				
	B.W.G.	inches	mm	inches	mm	inches	mm	Cod.	Cod.		Cod.	Elettriche	Pneumatiche		
											Electrical	Pneumatic			
											Electriques	Pneumatiques			
											elektrisch	pneumatisch			
2" (50,8)	6	0.203	5,16	1.594	40,5	1.535 ÷ 1.732	39,0 ÷ 44,0	R41.#-19/A	19/A-E	3-17/A÷21	3/4" (19,0)	F90 + MG/49 M4/L Matex Macrol 130 Masterol 180			
	7	0.180	4,57	1.640	41,6			R41.#-20	20-E						
	8	0.165	4,19	1.670	42,4	R41.#-20/A	20/A-E								
	9	0.148	3,76	1.704	43,3	1.614 ÷ 1.811	41,0 ÷ 46,0	R41.#-21	21-E						
	10	0.134	3,40	1.732	44,0	1.653 ÷ 1.850	42,0 ÷ 47,0	R41.#-21/A	21/A-E						
	11	0.120	3,05	1.760	44,7	1.693 ÷ 1.929	43,0 ÷ 49,0	R41.#-22	22-E						
	12	0.109	2,77	1.782	45,2										
	13	0.095	2,41	1.810	46,0	1.732 ÷ 1.968	44,0 ÷ 50,0	R41.#-22	22-E						
	14	0.083	2,11	1.834	46,6										
	15	0.072	1,83	1.856	47,1										
	16	0.065	1,65	1.870	47,5										
	17	0.058	1,47	1.884	47,8										
	18	0.049	1,24	1.902	48,3										
	2 1/4" (57,2)	6	0.203	5,16	1.884	46,9	1.771 ÷ 2.008	45,0 ÷ 51,0	R41.#-22/A	22/A-E			3-21/A÷23	3/4" (19,0)	F90 + MG/49 MG/36 Masterol 180
		7	0.180	4,57	1.890	48,0			R41.#-23	23-23/A-E					
		8	0.165	4,19	1.920	48,8	1.810 ÷ 2.047	46,0 ÷ 52,0	R41.#-23/A	23-23/A-E					
		9	0.148	3,76	1.954	49,7	1.850 ÷ 2.126	47,0 ÷ 54,0	R41.#-24	24-E					
		10	0.134	3,40	1.982	50,4	1.890 ÷ 2.165	48,0 ÷ 55,0	R41.#-24/A	24/A-E					
11		0.120	3,05	2.010	51,1										
12		0.109	2,77	2.032	51,6	1.929 ÷ 2.205	49,0 ÷ 56,0	R41.#-24/A	24/A-E						
13		0.095	2,41	2.060	52,4										
14		0.083	2,11	2.084	53,0										
15		0.072	1,83	2.106	53,5										
16	0.065	1,65	2.120	53,9											
2 1/2" (63,5)	5	0.220	5,59	2.060	52,3	1.968 ÷ 2.244	50,0 ÷ 57,0	R41.#-25	25-E	3-23/A÷26	3/4" (19,0)	F90 + MG/49 MG/36 Masterol 90 Masterol 180			
	6	0.203	5,16	2.094	53,2			R41.#-25/A	25/A-26/A-E						
	7	0.180	4,57	2.140	54,3	2.008 ÷ 2.283	51,0 ÷ 58,0	R41.#-26	26-27-E						
	8	0.165	4,19	2.170	55,1	2.047 ÷ 2.323	52,0 ÷ 59,0	R41.#-26/A	25/A-26/A-E						
	9	0.148	3,76	2.204	56,0	2.087 ÷ 2.362	53,0 ÷ 60,0	R41.#-27	26-27-E						
	10	0.134	3,40	2.232	56,7	2.126 ÷ 2.400	54,0 ÷ 61,0	R41.#-27/A	27/A-E						
	11	0.120	3,05	2.260	57,4										
	12	0.109	2,77	2.282	57,9	2.165 ÷ 2.441	55,0 ÷ 62,0	R41.#-28	28-E						
	13	0.095	2,41	2.310	58,7										
	14	0.083	2,11	2.334	59,3										
	15	0.072	1,83	2.356	59,8										
	16	0.065	1,65	2.370	60,2										
	17	0.058	1,47	2.384	60,5										
	18	0.049	1,24	2.402	61,0	2.205 ÷ 2.460	56,0 ÷ 62,5								
	2 3/4" (69,8)	6	0.203	5,16	2.344	59,5	2.244 ÷ 2.520	57,0 ÷ 64,0	R41.#-28/A	28/A-29/A-E			3-26/A÷29	3/4" (19,0)	F90 + MG/36 MG/49 Masterol 90
		7	0.180	4,57	2.390	60,6			R41.#-29	29-E					
		8	0.165	4,19	2.420	61,4	2.283 ÷ 2.560	58,0 ÷ 65,0	R41.#-29/A	28/A-29/A-E					
		9	0.148	3,76	2.454	62,3	2.323 ÷ 2.638	59,0 ÷ 67,0	R41.#-30	30-E					
10		0.134	3,40	2.482	63,0	2.362 ÷ 2.677	60,0 ÷ 68,0	R41.#-30/A	30/A-E						
11		0.120	3,05	2.510	63,7										
12		0.109	2,77	2.532	64,2	2.401 ÷ 2.716	61,0 ÷ 69,0	R41.#-30/A	30/A-E						
13		0.095	2,41	2.560	65,0										
14		0.083	2,11	2.584	65,6										
15		0.072	1,83	2.606	66,1										
16		0.065	1,65	2.620	66,5										

R/41



de inches mm	B.W.G.	sp		di		Espansione Expansion Expansion Walzbereich		Mandrino Tube expander Dudgeon Rohrwalzen	Rulli Rolls Galets Rollen	Spina Mandrel Broche Dorn	inches mm	Elettriche Electrical Electriques elektrisch	Pneumatiche Pneumatic Pneumatiques pneumatisch
		inches	mm	inches	mm	inches	mm	Cod.	Cod.	Cod.			
3" (76,2)	4	0.238	6,05	2.524	64,1	2.441 ÷ 2.756	62,0 ÷ 70,0	R41.#-31	31-E	3-29/A÷33	3/4" (19,0)	F90 + MG/30	Masterol 90
	5	0.220	5,59	2.560	65,0	2.480 ÷ 2.795	63,0 ÷ 71,0	R41.#-31/A	31/A-E				
	6	0.203	5,16	2.594	65,9			R41.#-32	32-E				
	7	0.180	4,57	2.640	67,0	2.559 ÷ 2.913	65,0 ÷ 74,0	R41.#-32/A	32/A-E				
	8	0.165	4,19	2.670	67,8			R41.#-33	33-E				
	9	0.148	3,76	2.704	68,7								
	10	0.134	3,40	2.732	69,4								
	11	0.120	3,05	2.760	70,1								
	12	0.109	2,77	2.782	70,6								
	13	0.095	2,41	2.810	71,4								
	14	0.083	2,11	2.834	72,0								
	15	0.072	1,83	2.856	72,5								
	16	0.065	1,65	2.870	72,9								
	17	0.058	1,47	2.884	73,2								
	18	0.049	1,24	2.902	73,7								

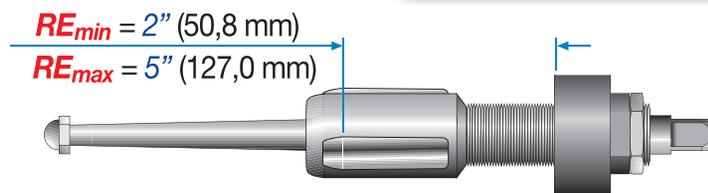
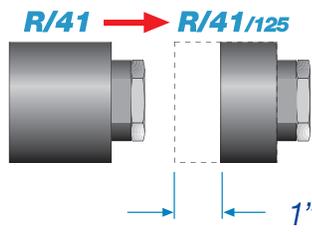
Mandrinatrici consigliate
Suggested rolling machines
Dudgeonneuses conseillées
Empfohlene Rohrwalzanlagen

Elettriche
Electrical
Electriques
elektrisch

Pneumatiche
Pneumatic
Pneumatiques
pneumatisch

Testa di battuta accorciata

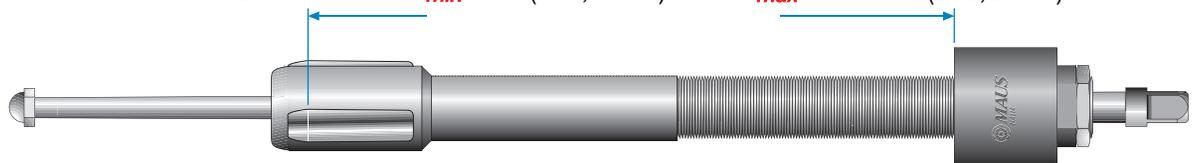
Shortened thrust collar
Butée raccourcie
verkürzter Anschlagkopf



R/41/125

R/41/180 R/41/260 R/41/360

R/41/180 $RE_{min} = 1" (25,4 mm)$ $RE_{max} = 7" (177,8 mm)$
R/41/260 $RE_{min} = 3.1/8" (79,4 mm)$ $RE_{max} = 10.1/4" (260,4 mm)$
R/41/360 $RE_{min} = 7" (177,8 mm)$ $RE_{max} = 14.1/4" (362,0 mm)$



Codice d'esempio per ordinazione mandrini
Sample code for ordering tube expanders
Code d'exemple pour commande dudgeons
Bestellnr. Bestellbeispiel Rohrwalze

de 2.1/2" - 14 B.W.G.

RE_{max}
R41.1 / **360** -28

R41.1 / **360** -28-DLS

Esempio codice per ordinazione spina
Sample code for ordering mandrels
Exemple code pour commande broche
Bestellnr. Bestellbeispiel Dorn

3/ **360** -26/A÷29